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BUREAU OF AMERICAN ETHNOLOGY

BULLETIN 143

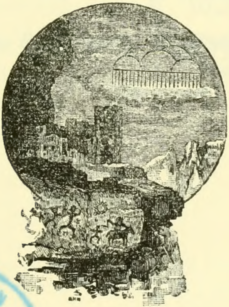
HANDBOOK
OF
SOUTH AMERICAN INDIANS

JULIAN H. STEWARD, *Editor*

Volume 1

THE MARGINAL TRIBES

Prepared in Cooperation With the United States Department of State as a Project of the Interdepartmental Committee on Cultural and Scientific Cooperation



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LETTER OF TRANSMITTAL

SMITHSONIAN INSTITUTION,
BUREAU OF AMERICAN ETHNOLOGY,
Washington, D. C., April 1, 1944.

SIR: I have the honor to transmit herewith a manuscript entitled "Handbook of South American Indians. Volume 1. The Marginal Tribes," edited by Julian H. Steward, and to recommend that it be published as a bulletin of the Bureau of American Ethnology.

Very respectfully yours,

FRANK H. H. ROBERTS, JR., *Acting Chief.*

DR. C. G. ABBOT,
Secretary of the Smithsonian Institution.

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FOREWORD

The present monumental work is ideally suited to carrying out the purpose of the Smithsonian Institution, "the increase and diffusion of knowledge," as well as that of the Bureau of American Ethnology, the promotion of "ethnological studies among the American Indians." Furthermore, it exemplifies the Institution's century-old policy of cooperating with others in the advancement of science, for it is in two senses a cooperative work. In this country the Department of State the National Research Council, and the Smithsonian Institution have joined forces to make the Handbook a reality; on a hemisphere scale, anthropologists of the two American continents have shared in the preparation of the manuscript.

The scope of the work is outlined in the introduction by Dr. Julian H. Steward, editor and guiding force of the project. These volumes provide for the first time a comprehensive summary of existing knowledge of the Indians of South America, which it is to be hoped will stimulate increased interest and further research in this fascinating field.

ALEXANDER WETMORE,
Acting Secretary, Smithsonian Institution.

OCTOBER 20, 1944.

HANDBOOK OF SOUTH AMERICAN INDIANS

INTRODUCTION

By Julian H. Steward, Editor

A developing sense of internationalism in the Western Hemisphere has brought increased recognition of the importance of the indigenous American civilizations and their survival among millions of present-day peoples. It has simultaneously emphasized the need for a more complete understanding of how these civilizations developed during prehistoric eras and how, after the Conquest, they blended with European culture to produce modern societies which are neither wholly Indian nor wholly European. The task of revealing these long chapters of American history is truly a pan-American one, requiring the assembly of thousands of local fragments from throughout the Hemisphere. Scientists of the American Republics have consequently long urged that more effective means be found of pooling and exchanging their information, while teachers and students have pleaded that the materials be published in convenient form.

It has particularly been felt that information on the great South American civilizations, which left so deep an imprint on modern life, should be made generally available to scholars and laymen alike, for present sources on South American Indians are published in so many languages and places and frequently have such limited availability that no one could have access to more than a fraction of the literature. No comprehensive general work on the subject exists, and none has even been attempted, because the task has such magnitude that it could only be accomplished by the joint effort of a large number of specialists.

As the need for a comprehensive Handbook of South American Indians became more acute, the National Research Council, stimulated by the late Baron Erland Nordenskïold, in 1932 appointed a committee consisting of Dr. Robert H. Lowie, Dr. John M. Cooper, and Dr. Leslie Spier to explore the possibilities of preparing one. This committee, subsequently expanded to include other anthropologists with a special interest in South America, prepared a statement of the kind of work that was needed.

The Smithsonian Institution through its Bureau of American Ethnology accepted responsibility for the preparation of the Handbook and began work in 1940, when the project became part of the program of the Interdepartmental Committee on Cultural and Scientific Cooperation, a program carried out by special appropriation of the Congress of the United States through the Department of State. The task became cooperatively inter-American in the broadest sense, for more than 100 scientists from throughout the Americas generously contributed their time and knowledge to preparation of the manuscripts. In fact, their enthusiastic participation in the task has, despite the innumerable delays and difficulties brought about by the war, put the project well ahead of schedule, so that the material has been written and prepared for the printer in 4 years instead of the 5 originally planned. It would be difficult to find more unselfish dedication of individual effort to an international undertaking.

The general objective of the Handbook is that laid down by the committee of the National Research Council: To provide a concise summary of existing data that will serve as a standard reference work for the scholar, a textbook for the student, and a guide to the general reader. At the same time, it is intended to take stock of the present state of knowledge, revealing its deficiencies and suggesting problems that will stimulate future research in both the field and library. Only by enlisting the collaboration of many specialists, each summarizing the data of a limited field, could the objective be realized.

It is not supposed that the Handbook has exhausted existing sources in a manner to render their future consultation unnecessary. To the contrary, the articles simply orient the reader to the salient facts and to the literature; future research on the many problems of current interest, such as post-Contact acculturation, and on problems that unfold in the future will require repeated re-use of the sources on which the present summaries are based.[1]

Although there was unanimity concerning the general need for a Handbook, the concrete terms for presenting its material were inevitably fraught with difficulties. The greatest difficulty was that of satisfying diversified modern interests with data that had been collected largely at random. Existing information comes primarily from missionaries and travelers, whose accounts are overloaded with descriptions of Indian dress, weapons, dances, and other readily observable items, but are almost wholly silent on social structure, religious patterns, land tenure, and other less conspicuous but extremely important aspects of native cultures. Even the great majority of the more recent anthropological monographs on South American tribes are composed in the 18th- and 19th-century traditions and aim to collect facts for their own sake rather than with reference to anthropological problems.

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[1] Some of the research needs and possibilities revealed during the preparation of the Handbook have already been summarized (Steward, 1943 a, 1943 b).

It was obvious that the necessity of presenting culture elements atomistically must dissatisfy those who look mainly for function, pattern, and configuration, or who seek psychological characterization of primitive peoples. It was clear that emphasis on primitive cultures would not greatly interest persons concerned with modern, acculturated Indians. It was apparent that the very division of subject matter was fraught with controversial points. An adherent of the kulturkreis, or "culture historical" school, would organize this material differently than a member of the American historical school. There was expectable difference of opinion as to whether a linguistic, geographic, or some other basis should be chosen.

Fully aware of the impossibility of satisfying everyone, the editor formulated a detailed plan that adhered as far as circumstances permitted to the original proposition that the Handbook should summarize the facts of aboriginal ethnology. At the same time, he urged that modern problems be kept in mind, and that the literature be appraised in a manner to acquaint research workers with its value to diversified interests.

The Handbook centers attention on the culture of each tribe at the time of its first contact with Europeans. Where the prehistoric past of the Contact period culture has been revealed, as in the Andean area, a substantial amount of archeology is included by way of background. Post-Contact acculturation is brought up to date when information is available. Although little research has been done on acculturation, so that it remains a vast field for library and field work, any ethnographic description necessarily is acculturational in some degree. As accounts of Indian tribes at the moment of the Conquest are nonexistent or are sketchy in the extreme, reconstructions of aboriginal ethnology must rely on documents ranging over the 400 years of the historic period, during which profound Spanish, Portuguese, and even Negro influence reached the most isolated jungle tribes. To avoid compressing these four centuries of post-Contact data into two-dimensional ethnographic pictures, as if they faithfully portrayed pre-Columbian cultures, authors were urged to present their data chronologically. The articles consequently reveal much post-Contact change, and show that new economic, social, and religious patterns followed the introduction of European crops, steel tools, new trade relations, Christianity, and many other factors contingent on the arrival of the White man. The final absorption of the tribes of the Tropical Forests and marginal areas into European civilization has never been studied, for until recently anthropological interest has ceased when tribal custom has been lost. But in the Andean area, a strong native civilization reintegrated with Spanish elements and patterns survives among millions of Indians, and gives acculturation practical as well as scientific importance. More complete information on this area makes it possible to sketch broad trends from the earliest archeological beginnings of Andean civilization through the *Inca* Empire, the Spanish Conquest, and the post-Conquest period to the present day.

A volume will be devoted to each of Cooper's fourfold culture divisions of South America (1940, 1941): (1) Marginal hunting and gathering tribes of Eastern Brazil, the Gran Chaco, the Pampa, Patagonia, and Tierra del Fuego; (2) the Andean civilizations; (3) the tribes of the Tropical Forests and Savannas; and (4) the Circum-Caribbean cultures, including that portion of Central America which was strongly influenced by South America. The fifth volume will contain a description of the impact of Old World civilization on the Indians, the geographical background, the physical anthropology, a summary of linguistic relationships, Indian demography, and articles describing various aspects of the cultures comparatively and distributionally.

The Handbook subdivisions and their length have been governed by expediency. Tribes with great cultural similarity are treated as a unit when possible. In many cases, however, it seemed more important to place on record the specialized knowledge of a certain contributor than to group or divide according to uncertain cultural frontiers. In other cases, difficulties facing all contributors during the present world situation required last-minute reassignment of subjects. The result has been to split the Handbook into an increasing number of separate articles as specialists were found with knowledge of particular subjects.

The lack of uniformity in treatment and proportion of detail in articles is explained by several considerations. First, there are inevitably individual differences among 100 contributors. Second, it was a policy to include more detail in articles based on early documents and on obscure, scattered, and inaccessible sources, which are published in many languages, than in articles treating subjects that are well covered in generally available recent monographs. Third, there is unevenness in the original source materials. The only sources, especially for tribes which have long been extinct, are often early missionary and travelers' accounts, which generally afford only extremely spotty and tantalizingly incomplete information.

It was hoped at first, when the Handbook was planned as a closely unified, one-volume work, that all contradictory statements could be reconciled and eliminated. As the Handbook has increased in size, however, and as the material has been divided into five volumes, each of which is to be published as soon as it is completed and therefore before all articles for subsequent volumes are received, it is impossible to avoid including conflicting views. Differences of opinion, however, are quite expectable in the present stage of knowledge of South American Indians; and to present the material as if all authors were in agreement would give a fictitious certainty to many interpretations which are no more than tentative opinions. In a vigorous science, moreover, there will be diverse points of view, especially among the scientists working on the same problems. These, however, are of a purely intellectual order. Dedication of effort to a common problem, often through the closest personal and professional cooperation, constitutes a fundamental bond between individuals, regardless of their failure to agree on particular points.

To make the Handbook as widely useful as possible, it includes articles of varying breadth. The introductory sections are intended for persons seeking a brief, comprehensive view of the major areas and subjects. Necessarily synthetic in nature, these naturally tend to be more interpretative and theoretical than the more specialized articles which are essentially factual. But it is frankly recognized that the very selection and organization of fact unavoidably imply some theoretical presuppositions.

It is unfortunate that the war has made it impossible to take advantage of the knowledge of our many European colleagues who have spent years in South American research. At the same time, the very necessity of finding personnel from the Americas to write all the articles has made the work as truly pan-American in execution as in scope. The awakened interest in mutual problems as well as the contacts created between scientists foreshadows a new era of research, most of it necessarily cooperative, directed toward fundamental human problems of the Americas. The appropriateness of inter-American collaboration on these problems can hardly be questioned.

PRESENTATION OF MATERIALS

Article outlines.—The material in each article is arranged according to a standard sequence. When an examination of a large number of standard ethnographic monographs revealed wide variation in subject arrangement, the authors agreed to follow an arbitrary outline, so far as their materials permitted.

The articles start with an Introduction, which often includes a geographical sketch. Tribal Divisions and History then follow. The history traces the major post-Contact events which have affected the tribe. When local archeology can definitely be linked with the historic tribe, it is included as a background to the history. Otherwise it is treated in a separate article. The next section evaluates the principal anthropological sources. The cultural summaries commence with Subsistence Activities (Farming, Collecting Wild Foods, Hunting, Fishing, and Food Preparation and Storage). Then come Villages and Houses, Dress and Ornaments, and Transportation. Manufactures, which follows, is essentially technological; the functional aspects of material culture are described under other headings appropriate to the use of the objects. This section includes Basketry, Weaving, Ceramics, Bark Cloth, Metallurgy, Weapons, and other types of manufactures. The following section is usually Trade or Economic Organization. Social and Political Organization, which follows, describes the general patterns and structure of the groups. If necessary, special accounts of Warfare and Cannibalism come next. Life Cycle then sketches Birth, Childhood, Puberty rites and initiations, Marriage, and Death observances. Esthetic and Recreational Activities includes Games, Music, Musical instruments, Dancing, Narcotics, and Intoxicants. Religion describes beliefs about supernatural powers and beings, and magical and religious rites, functionaries, and structures. It also includes concepts and practices concerning the medicine man or shaman, unless shamanism is sufficiently developed to warrant a separate section. Mythology and Folklore follow. Finally comes Lore and Learning, which includes cosmogony, measurements of weight, time, and space, and other special beliefs or concepts of an essentially nonreligious nature.

Tribal names and synonyms.—Each chapter of Volumes 1 to 4 carries a heading, Tribal Divisions, which lists tribes, subtribes, and synonyms, the last usually in parentheses. An effort is made to account for all the significant names appearing in the literature, a prodigious task complicated by conflicting usage and innumerable synonyms.

The inclusiveness of tribal designations varies tremendously. At one extreme are terms like *Arawak*, *Carib*, and *Tupí* or *Guaraní*, designating widespread peoples, each with great linguistic similarity and some cultural homogeneity, but lacking any political unity. Some terms are more restricted. *Tupinamba*, for example, embraces a large number of *Tupí* peoples, who, though culturally homogeneous, are split into independent and locally named groups scattered along 2,000 miles of Brazilian coast. At the other extreme is the practice, commonly employed for large portions of the Amazonian and Marginal culture areas, which lists every independent village, band, or horde as a separate tribe even though it consisted of but a single family. Thus, there is a name for each of the many localized, patrilineal bands which compose the *Ona* of Tierra del Fuego, for the innumerable independent hordes of the *Ge*, for the many migratory families of the *Alacaluf*, and for the independent family villages of the *Tucano*. As it would exceed the physical limits of the Handbook, as well as the bounds of usefulness, to list all these names, we have attempted to group them into what may, in a cultural and linguistic sense, be considered tribes.

Efforts to systematize tribal classifications and to clarify tribal names have been only partially successful. Many names appear in the early lists without explanation. Others are so inadequately explained that the nature or the magnitude of the groups in question is obscure. Some are doubtlessly synonyms of well-known tribes, whereas others probably designate minor and unimportant groups. But until new data from the field or the literature clarify their significance, the tribal lists and the tribal map of South America will have an enormous number of small tribes—more, perhaps, than other comparable areas of the world.

The standard name chosen for each tribe is that best established by usage, except in a few cases where a secondary name is selected to avoid confusion between similarly named tribes. *Coronado* (crowned) and *Orejón* (large ear), for example, have become the established designations of so many unrelated tribes that we have substituted synonyms for these names to distinguish them from one another.

All synonyms are included in parentheses following the first listing of the standard tribal name. Important differences in nomenclature are also explained in the text, but many synonyms are mere variants of spelling.

Spelling follows a simple orthography, which aims to be intelligible in English, Spanish, and Portuguese. Vowels have their Spanish values, and accents fall on the antepenult unless otherwise indicated. As *k* does not occur in Spanish and Portuguese, *c* has been substituted before *u*, *o*, and *a*, except in spelling which is too well established to permit change. No attempt is made at phonetic spelling, for it would serve only academic interest even if it were possible to know the native rendition of those names originating in Indian languages.

Following North American usage, the singular form of the tribal name serves as the collective noun, and linguistic families bear the ending *an*.

All tribal names and synonyms will be listed in the general index in the last volume. The more important tribes will be shown on the general map, the locations being those at the time of the first contact with Europeans.

Bibliography.—Citations of sources are usually placed in parentheses in the text, the author's name, the date of his publication, and frequently the volume and page or pages being indicated. When only the date and pages are cited, the latter are indicated by p. or pp., for example, Jones, 1915, p. 10. When the volume is included, it is indicated by the number following the date and the pages are indicated by a colon, for example, Jones, 1915, 2:10–15, which means Jones, 1915, volume 2, pages 10 to 15.

The full titles and place of publication of each reference will be found in the general bibliography at the end of each volume, where all the publications cited throughout the volume are given under the authors' names, which are listed alphabetically.

Handbook contributors have compiled complete bibliographies on their subjects, briefly and critically commenting upon each article, monograph, and book. It was the original plan to publish these in a single large bibliography which would form a part of the Handbook. As the complete annotated bibliography will, however, probably include nearly 10,000 items, publication of this material in full is deferred in the hope that special bibliographic volumes may some day be prepared.

Maps.—Each volume will carry a guide map to the articles contained in it. In addition, certain articles are accompanied by special tribal maps. A general tribal and linguistic map will accompany Volume 5, but will also be made available separately.

Except where special dates are indicated, maps give the location of tribes at the time of their first contact with White men. On the coastal regions and in Highland Perú, this was early in the 16th century. Along the main waterways and other routes of exploration and travel, many tribes were encountered later in the same century. In other regions, especially around the periphery of the Amazon Basin, the Indians were first discovered much later, many of them only in the present century. There are even regions so imperfectly explored today that the identification and location of tribes is based on the merest hearsay.

Special mention must be made of the three maps which cover, respectively, the area north of the Amazon River, the portion of Brazil lying east of 56° W. long., and the area extending southward from the Amazon River to include the lower Juruá, Purús, and Madeira Rivers, and a portion of Matto Grosso. These, which are unusual in detail and in the location of tribes at different dates, were traced directly from a large map especially prepared by Dr. Curt Nimuendajú for the Handbook. It is regretted that Dr. Nimuendajú's original map could not be published, but its size, 6 feet by 8 feet, and the large number of colors indicating the linguistic affiliation of all tribes, made this impossible. In addition to being traced directly for the three maps just mentioned, other parts of Dr. Nimuendajú's map served, along with special maps prepared by other contributors, as a source of information for the general tribal map, which was prepared by the editor.

Index.—A complete index to the entire Handbook will be issued under separate covers. It will include all the synonyms of each tribe in order to facilitate the identification of tribes.

ACKNOWLEDGMENTS

Individual acknowledgments in a cooperative work are scarcely necessary. All persons involved had a part in urging the necessity of the Handbook, in planning it, and in carrying it to completion.

All have given unselfishly of their time. Those who found their normal work redoubled after the war involved the Western Hemisphere, even those who eventually left their countries to fight with the armed forces, somehow found time to complete their promised contributions.

A special word of gratitude, however, is due Dr. Alfred Métraux. The extent of his contribution is by no means indicated by the large number of articles appearing under his name. With an unsurpassed knowledge of South American ethnology and ever generous with his time, his advice and help to the editor and contributors alike have been a major factor in the successful completion of the work.

Dr. Robert H. Lowie also merits particular thanks for his help in arranging and editing the materials of Volume 3 and for writing the general article on the Tropical Forests. Similarly, to Dr. Wendell C. Bennett the Handbook is indebted for constant advice in planning Volume 2, in integrating its articles, and for preparing the general article on the Andean civilization.

The Handbook acknowledges with gratitude the gracious cooperation of the Hispanic Foundation of the Library of Congress, and especially the Foundation's Director, Dr. Lewis Hanke. The wealth of readily available materials in the Foundation's collections and the conveniences and courtesies accorded Handbook contributors in consulting them have added immeasurably to the completeness of the work.

Gratitude is due the innumerable persons and institutions which generously made photographs available for reproduction without cost or restrictions. These are individually acknowledged in credit lines.

For translation of several manuscripts in Spanish, Portuguese, and French, the Handbook is indebted to the kindness of the Central Translating Division of the Department of State, to the Strategic Index of the Americas, and to several members of its own office staff.

Finally, special praise must be given the untiring office staff for carrying out the vast routine tasks of preparing the manuscripts and materials. The editor is particularly indebted to Miss Ethelwyn Carter who, almost since the beginning of the project, has helped with the innumerable details necessary to its smooth functioning, and to Dr. Gordon R. Willey who assumed responsibility for the final assembling and preparation of illustrations and manuscripts.

EDITOR'S NOTE.—While this volume was in press, word was received of the death of Dr. Curt Nimuendajú during a field trip late in 1945 to the *Tucuna* Indians of the upper Amazon. Scientists everywhere will deeply feel the loss of this eminent Brazilian scholar, whose extensive researches made him the foremost of all ethnologists working in the South American field.

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OF THE

HANDBOOK OF SOUTH AMERICAN INDIANS

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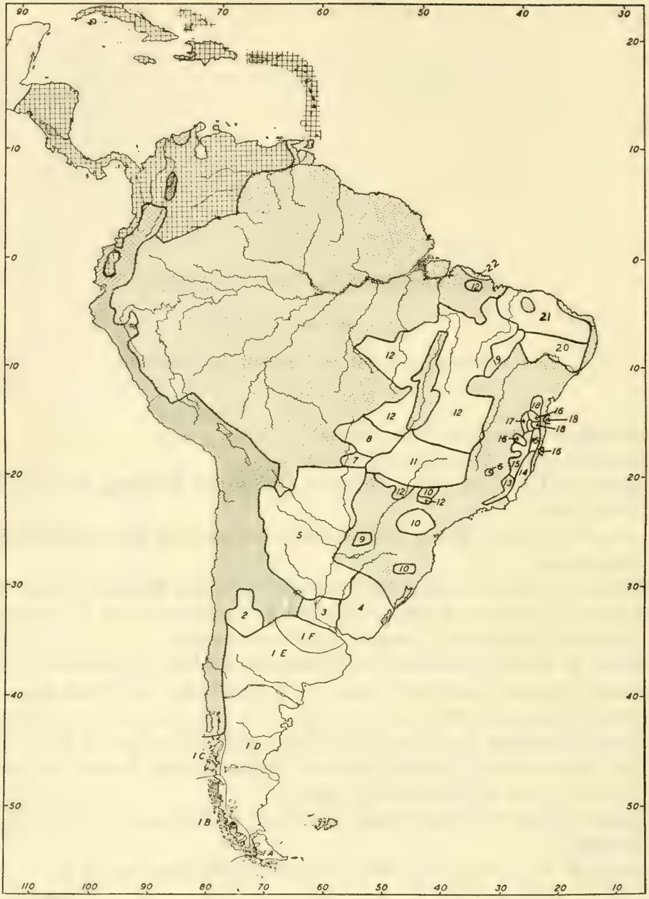
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Map 1.—Guide map of the tribes and subjects of Volume 1 of the Handbook. (Parallel-hatched, the Andean Civilizations, Volume 2; stippled, the Tropical Forests and Savannas, Volume 3; cross-hatched, the Circum-Caribbean cultures, Volume 4.) 1, Southern Hunters; 1A, Fuegians; 1B, *Alacaluf;* 1C, *Chono;* 1D, *Tehuelche* and Patagonian archeology; 1E, *Puelche* and Pampa archeology; 1F, *Querandí* and Pampa archeology. 2, *Huarpe* and Mendoza archeology. 3, Paraná Delta. 4, *Charrua.* 5, Gran Chaco. 6, Lagoa Santa. 7, *Guató.* 8, *Bororo.* 9, *Guayakí.* 10, *Caingang.* 11, *Southern Cayapó.* 12, *Northwest* and *Central Ge.* 13, *Purí-Coroado.* 14, *Guaitacá.* 15, *Botocudo.* 16, *Mashacalí.* 17, *Camacan.* 18, *"Tapuya."* 19, *Pimenteira.* 20, *Cariri.* 21, *Teremembé Tarairiu.* 22, *Teremembé.*

VOLUME 1. THE MARGINAL TRIBES

PART I. INDIANS OF SOUTHERN SOUTH AMERICA

THE SOUTHERN HUNTERS: AN INTRODUCTION

By JOHN M. COOPER

Under "Southern Hunters" are here included the *Yahgan*, *Alacaluf*, *Chono*, and *Ona* of the Magellanic Archipelago, and the *Tehuelche*, *Poya*, and *Puelche* of Patagonia and the Argentine Pampa (map 1, *No. 1;* map 2). Inasmuch as extensive bibliographies and fully documented studies of the culture of the *Yahgan*, *Alacaluf*, *Chono*, and *Ona* are readily accessible in the works of Cooper (1917), Lothrop (1928), and Gusinde (1931, 1937), source lists and page references in the present papers on these four tribes are kept to the minimum consistent with the objectives of the Handbook. Since, however, we lack similar over-all documented studies of the *Tehuelche* and *Puelche*, much more copious sources and page references are included in the sections dealing with them.

All these Southern Hunters belong to the South American marginal peoples, as distinct from the silval and sierral ones. These marginals may be divided into: The Southern Coastal, of the Magellanic shores and channels; the Campestral, of Tierra del Fuego, Patagonia, the Argentine Pampa, the Uruguayan plains, and the Chaco; the Savannal, of the Brazilian highlands and adjacent regions; and the Intrasilval, scattered here and there within or near the broad expanse of the tropical rain forest (Cooper, 1942 b).

The Southern Coastal marginals are the *Yahgan*, *Alacaluf*, and *Chono*. The *Ona*, *Tehuelche*, *Poya*, and *Puelche* are the more southern of the Campestral marginals.

The *Yahgan*, *Alacaluf*, *Ona-Tehuelche*, and *Puelche* represent distinct linguistic families. The *Chono* may have spoken an *Alacalufan* dialect, the *Poya* an *Ona-Tehuelche* one. Physically the *Yahgan*, *Alacaluf*, and *Chono* may be classed together, at least loosely and provisionally, as may also the *Ona* and *Tehuelche*. Classification of the *Poya* and *Puelche* is much more problematic.

Culturally, these seven peoples had much in common, although manifesting many marked divergences. The *Yahgan*, *Alacaluf*, and *Chono* should best be bracketed together; likewise the *Ona*, *Tehuelche*, *Poya*, and *Puelche*. In either case much of common culture is conditioned by the natural environment—archipelagic for the first group, insular and continental for the second.

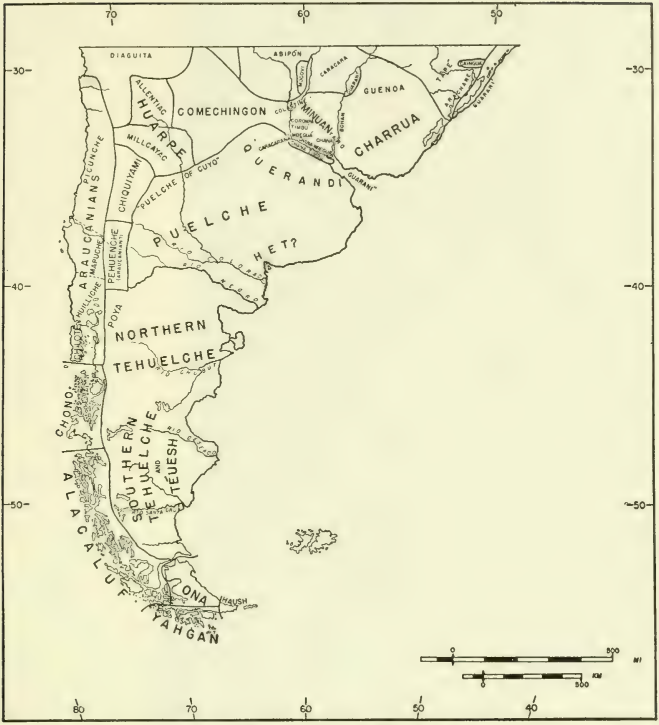
All seven shared in common the following cultural elements: A collecting economy, with gardening lacking, except for traces among the *Poya* and *Chono* in touch with the *Araucanians;* absence of tobacco and alcoholic beverages, except among the *Poya* and perhaps the pre-Columbian *Puelche;* simple movable shelters, of lean-to, domed, conical, or toldo construction; sleeping on the bare ground or on brush or skins, with the hammock and raised bed absent; weapons and utensils of stone, bone, or wood, with metals quite lacking; absence of gastronomic and ritual cannibalism; well-organized family system, with prevalent (not strict) monogamy; the band as the more common economico-political unit, usually made up largely of relatives by kin or marriage; chiefs either absent or, where present, of most limited authority; societies, sibs, and moieties quite absent, and social stratification almost entirely so; land-tenure systems, where our information is at all clear, approximating the family hunting ground system; again, where information is clear, well-marked theistic as well as shamanistic beliefs and practices (Cooper, 1942 a, pp. 10–11; 1942 b, pp. 149–150).

Between, however, the Southern Coastal peoples and the Campestral, and, for that matter, between the several tribes within these two divisions, there were numerous and often marked divergences (Cooper, 1925).

The Southern Coastal tribes were predominantly canoe people, fishermen, and gatherers of sea food, with well-developed types of watercraft. Little clothing was worn. The chief weapons of chase and war were the spear, harpoon, sling, and club. Basketry was of coiled or looped techniques.

The Campestral *Ona*, *Tehuelche*, and *Puelche* were predominantly land people, hunters of the guanaco in particular. Clothing covered most of the body. Their chief hunting and fighting weapon was the bow and arrow, although the *Puelche* when first known to the Whites had the bolas and the *Tehuelche* later acquired it. Bags and containers were mostly of skin.

The principal post-Columbian changes in culture among the Southern Hunters of the mainland north of the Strait of Magellan, apart from such direct European importations as steel tools and weapons, firearms, and Christian religious concepts, came as a result of or a sequence to the introduction of the horse. The *Puelche* must have acquired the horse well before 1700, but our information on the point is slight. The *Tehuelche* acquired it, from either the *Araucanians* or the *Puelche*, some time between 1670 and 1741, more likely around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GUARANI
PICUNCHE
CHIQUIYAMI
PUELCHE OF CUYO
PUELCHE
HET?
ARAUCANIANS
MAPUCHE
HUILLICHE
PEHUENCHE (ARAUCANIAN?)
RIO COLORADO
RIO NEGRO
POYA
CHILOTE
NORTHERN TEHUELCHE
RIO CHUBUT
CHONO
SOUTHERN TEHUELCHE AND TEUESH
RIO DESEADO
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Map 2.—The tribes of southern South America, at the first European contact period.

1725. At the time of or subsequent to the adoption of the horse by the *Tehuelche*, a great many new developments occurred in their culture, all or most of them being accretions from without: the bolas, lasso, and lance; hide helmets, coats, and shields; pipe smoking and the use of intoxicants; earrings and the tupu; gambling; the musical bow (Cooper, 1925, pp. 408–409).

Both the ethnological and the archeological evidence suggests, without, of course, rigidly demonstrating, that the Southern Coastal and Campestral marginals included in the Southern Hunters are not cultural reverts (Bird, 1938), but instead are cultural tarriants who have retained in an appreciable measure a very archaic pattern of culture. (Nordenskiöld, 1931; Krickeberg, 1934; Cooper, 1925, 1941, pp. 9–13, 1942 b.) But in the descriptive treatment which is called for in the present volume of the Handbook, fuller discussion of this large problem of historical interpretation is not in order.

Plate 1.—**Southern Patagonian landscape.** Rhea feeding on grassy plains near Cabo Virgenes, Strait of Magellan. (Courtesy *Junius Bird*.)

PLATE 2.—**Southern Patagonian landscapes.** *Top:* Typical grassland country, north side of Strait of Magellan. *Bottom:* Volcanic crater and core in grassland area, north side of Strait of Magellan. (Courtesy Junius Bird.)

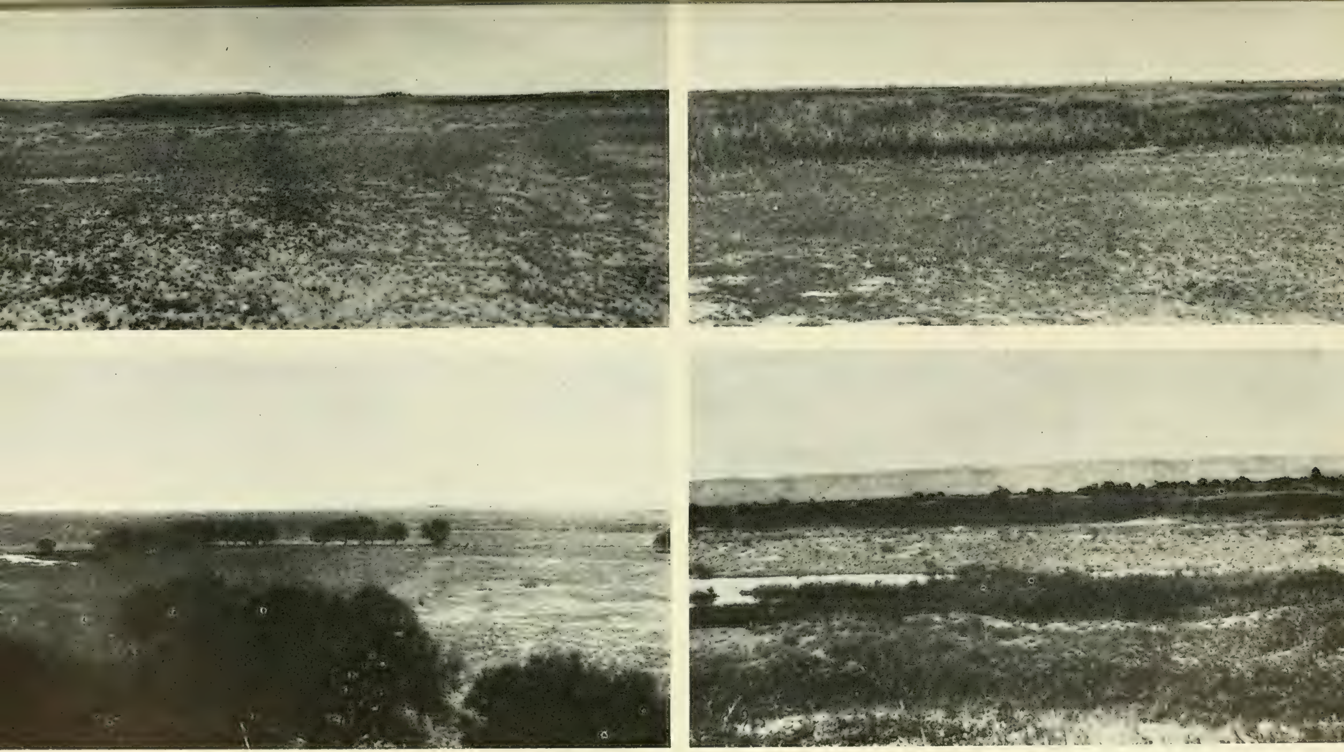

Plate 3.—**Landscapes of the Greater Pampa.** *Top (left):* Neuquén landscape near Zapala. *Top (right):* Marshes in Buenos Aires Province. *Bottom (left):* View of the Pampa, Buenos Aires Province. *Bottom (right):* Flood plain of the Río Negro near General Roca. (Courtesy Alexander Wetmore.)

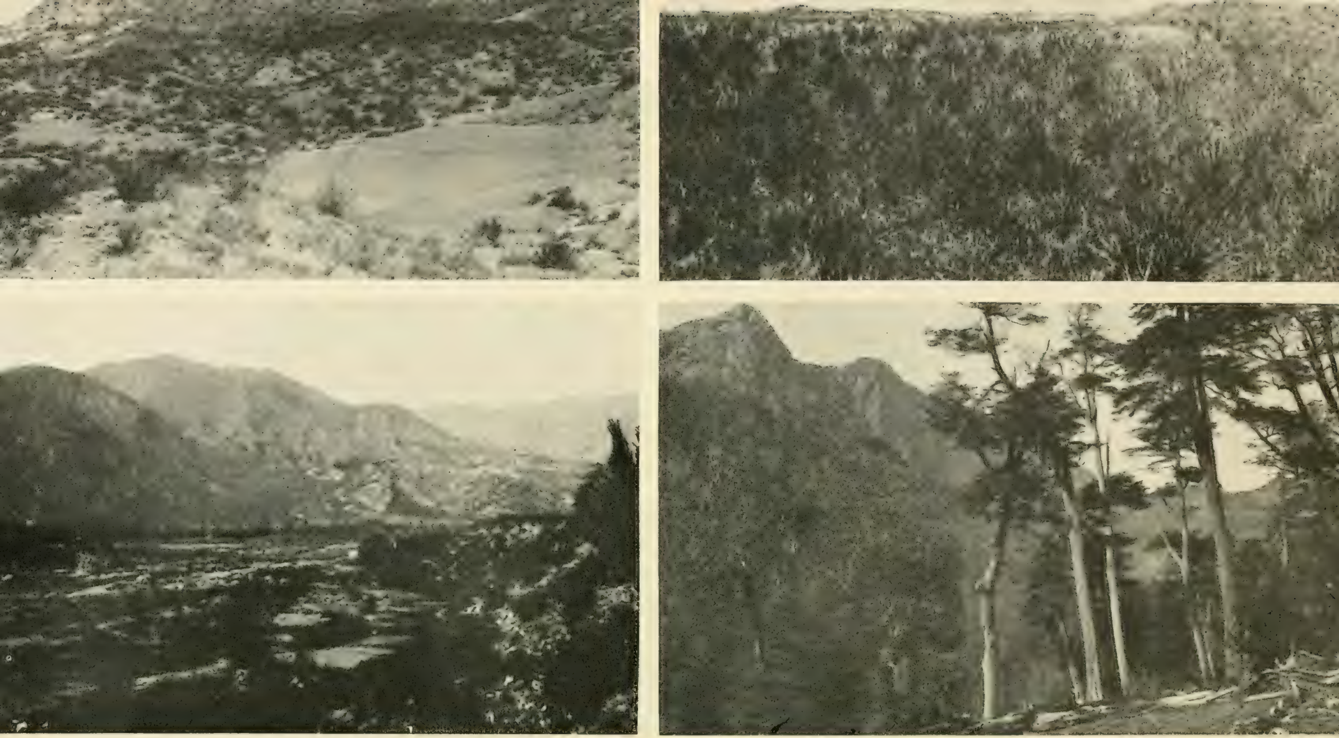

PLATE 4.—**Landscapes of the Greater Pampa.** *Top (left):* Río Negra country near General Roca. (Courtesy Alexander Wetmore.) *Top (right):* Sand dunes of Buenos Aires Province. Near Cabo San Antonio. (Courtesy Alexander Wetmore.) *Bottom (left):* Andean valley at Potrerillos in Mendoza. (Courtesy Alexander Wetmore.) *Bottom (right):* Argentine Andes. Near border of Neuquén and Río Negro Provinces. (Courtesy Julian H. Steward.)

THE ARCHEOLOGY OF PATAGONIA

By Junius Bird

INTRODUCTION

The geographical limits of Patagonia have never been fixed by law or even by common usage. In the present instance, Patagonia is used broadly to include the southern Chilean archipelago and the Argentine territory south of the Río Negro. The island of Chiloé, though not properly within its limits, may for cultural reasons also be included. We deal then with a roughly triangular area, about 1,200 miles (1,920 km.) by 600 miles (960 km.) at its widest (map 1, *Nos. 1A*, *1B*, *1C*, *1D*).

The archeology of this region is of more than local interest. Some of America's most primitive cultures survived here almost unaltered until recently. If, as supposed, they stem from ancient prototypes, the sites offer possibilities for revealing the changes they have undergone, the succession of cultures, and the time which has elapsed since they first reached the tip of the continent.[1]

Some information is now available, and the prospect for a complete recovery of the archeological record is unusually good here for several reasons. Most of the grasslands are unglaciated, and the moraines, marking different stages of the ice advance, lie far from the east coast, except at the Strait, so that sites have not been destroyed. Furthermore, the land has gradually risen since before human occupation became possible so that sites close to the shore are preserved and their antiquity may be correlated with the elevation of the land. Finally, the many rock shelters and caves, especially in lava, served as sites where cultural remains have been excellently preserved for a long time (pls. 5, 6).

The archeological problems of our area are somewhat simplified by the environmental influence on the cultures. The remains are almost exclusively those of nomadic hunters and fishermen. Pre-Columbian agriculture never extended south of Chiloé, and to this day the excessive rainfall and rugged topography of the southern archipelago discourage cultivation. On the Argentine side, the land is even now used primarily for grazing, although Europeans have successfully farmed the limited quantities of arable land in the northern valleys.

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[1] All evidence indicates that the native populations of Fuegia at the southern end of this region ultimately came from the north. Nothing supports hypotheses of trans-Pacific migrations, either direct or via Antarctica.

Our region, however, has two cultural areas: that now occupied by the canoe Indians—*Chono*, *Alacaluf*, and *Yahgan*—in the archipelago west of the Cordillera, and that of the foot Indians—*Tehuelche* and *Ona*—in the broad, open country of Patagonia. There was little cultural exchange between these areas, except in the region of the Strait of Magellan, where the canoe and foot tribes had ready access to one another.

On the densely forested and overgrown archipelago south of Chiloé, the food supply was principally shellfish, sea lions, and sea birds; land game was limited. Travel is possible only by boat or canoe, so that the preferred camps are, and always have been, protected moorings or landings which are close to sources of food. Contrary to what one might suppose, the most desirable part of the archipelago is in the extreme south, along the southern side of Tierra del Fuego, where a better climate induced people to remain. There is, in fact, a much greater concentration of middens there (pls. 6, 7, 8) than anywhere else south of Chiloé.

The Atlantic coast is by contrast desolate. Vegetation from the sea back to the foothills is limited to grass or low bushes, and in places suffers from scanty rainfall. Beaches are open and unprotected, harbors are infrequent and poor, and shellfish, fish, and sea lions are not as plentiful, or at least as accessible, as on the Pacific side. Material for the construction of watercraft is absent, though a people with the skill and ingenuity of the *Eskimo* could, with any real inducement to develop a strictly coastal culture, have managed. Actually, land game provided the staple food, with the products of the beaches secondary.

At the beginning of historic times, guanaco and rhea and probably Patagonian cavy were the important game in the grasslands, and the native economy centered on their pursuit and capture. Permanent camps could not be maintained, but sites that were sheltered from the wind, accessible to water, and in a good hunting district were used repeatedly. If not damaged by erosion, such sites are likely to yield data on a long period of human occupation.

HISTORY OF INVESTIGATIONS

The first recorded archeological discovery in this area was in 1578, when members of Drake's crew, while digging a grave, found "a great grinding stone, broken in two parts" (Fletcher, 1652, p. 33). Interest lagged, however, until the latter part of the last century when settlers began to collect surface material. As this filtered into museums, especially in Buenos Aires, it aroused interest, and led to Dr. Félix F. Outes' detailed report on existing collections (1904 a), long the standard reference on Patagonian artifacts. This was supplemented by later papers (Outes, 1905, 1916) and the reports of other Argentine scientists, Ambrosetti (1903), Aparicio (1935), Vignati (1923 a, 1923 b, 1933) treating mainly surface finds, graves, and rock paintings.

The first archeological report on the far south was Lovisato's account (1885) of his examination of a midden on Elizabeth Island in the Strait of Magellan. The discovery of a *Mylodon* skin in a huge cave near Ultima Esperanza in 1895 stimulated excavation in search of additional remains of this animal. (For bibliography, see Gusinde, 1921.) Investigation exposed a small amount of late camp refuse, a burial, and 18 artifacts, 2 of which may have been as old as the sloth remains. The remains were variously explained, some persons even concluding that the Indians had stabled giant sloths in the cave, an explanation which has persisted even though one of the most reliable excavators (Nordenskiöld, 1900) doubted that the *Mylodon* remains and artifacts were really associated.

On Tierra del Fuego, the first archeological study and examination of shell mounds on the east coast was made by Vignati (1927). In that year, Lothrop (1928) visited the area for ethnological and archeological reconnaissance. His survey of portions of the south side of Tierra del Fuego revealed abundant evidence of human occupation. In the same season, Guiñazú (1936) mapped additional middens on the east coast. A few years later Sir Baldwin Spencer came from Australia to work in the same section, but died shortly after his arrival.

From 1932 to 1937, the American Museum of Natural History sponsored two field trips with the kind cooperation of the Museo Nacional de Historia Natural of Chile. These included a general survey of various sites south from Puerto Montt to the Strait of Magellan and intensive excavations on Navarino Island and in Chilean territory east of Punta Arenas (Bird, 1938).

These sources, supplemented by valuable information from private collectors in Argentina, afford a reasonably reliable basis for a sketch of the prehistory of Patagonia and the Archipelago.

CULTURE SEQUENCE AT THE STRAIT OF MAGELLAN

The longest cultural sequence was found in several caves and shelters in the grasslands along the north shore of the Strait of Magellan in a section beyond the limits of the last ice advance. There were five prehistoric periods of the inland culture. The oldest consists of remains of people who hunted the ground sloth and the native American horse; the latest is indentifiable with the culture of the *Ona* of Tierra del Fuego. The periods are distinguished by the types of projectile points and by the presence or absence of certain other artifacts. All lack pottery, which is found only rarely in this region on historic *Tehuelche* camps (pl. 5), associated with modern horse bones and trade beads. All have in common simple stone scrapers for working wood and bone. Blades for scraping skin, however, show an abrupt change in pattern and are an important diagnostic trait. The first three periods used large blades, which varied in size and proportions, while the fourth had the small "thumbnail" type which, because of the manner of hafting, is much more uniform in size. The last is used to the present day.

First period.—The oldest culture can be most readily recognized by the projectile points—barbless blades with tapering stems expanded at the base. The few associated artifacts are: Bone flaking tools, bone awls, scrapers, rough chopping tools, and flat lava disks of unknown use (pl. 9). At this time cremation burial was practiced.

Second period.—The second cultural level yields bone projectile points of varying form and size, two types of awls which seem to be confined to this level, and numerous scraping tools (pl. 9).

Third period.—The third period produces stemless stone points, the majority of which are triangular in outline with rounded bases; awls; scrapers; and bolas stones. These stones are mainly small ones for taking birds, a significant fact in view of the use of bird bolas elsewhere in America (pl. 10). Contemporary human skeletons are flexed and smeared with red clay.

Fourth period.—In the fourth period, stemmed knife and projectile points replace the stemless types and are accompanied by the small hafted scraper already mentioned. There are also simple beads and ornaments, awls, and large bolas stones of various forms (pl. 10). Burials thought to be of this period are found in stone cairns, the body extended.

Fifth period.—Although artifacts of the fourth period may have been in use until the historic period, the presence of a fifth cultural group is evident. Small arrow points of a type characteristic of the *Ona* (pl. 11) associated with other typical *Ona* artifacts such as combs, beads, and rough bone tools show the relatively late presence of this tribe on the mainland.

Historic period.—The only evidence of White contact at the Strait is the material on *Tehuelche* camp sites. The abundance of modern horse bones probably dates them at about the middle of the 18th century. Plain undecorated sherds, pipes, hammered copper ornaments, and sometimes glass trade beads are found.

CULTURE SEQUENCE AT BEAGLE CHANNEL

On the shores of Beagle Channel, south of Tierra del Fuego, are innumerable shell middens, some quite large, with compact refuse over 10 feet (3 m.) deep. They contain evidence of two distinct cultures.

Early period.—The older is characterized, as in *Alacaluf* territory, by the use of mussel-shell knives, single-barbed harpoon points, bird-bone awls, whetstones, sinkers, rough choppers, simple ornaments, and the complete absence of the pressure flaking technique of stoneworking (pl. 11). In the Fuegian middens these items are accompanied by large bolas stones and small hafted scrapers, both of which must have been acquired from the foot tribes who, according to mainland chronology, first had them in the fourth period. Similarity of ornaments is further evidence that Tierra del Fuego borrowed from the mainland during this period.

This simple culture evolved with slight change into the modern *Alacaluf* in the territory between the Strait and the Gulf of Peñas. Its extension into Tierra del Fuego may indicate that the *Alacaluf* were then in what at the beginning of historic times was *Yahgan* territory.

Recent period.—The late material, which forms the upper portions of the Beagle Channel middens, is identifiable as *Yahgan* (pl. 12). The use of pressure-flaked arrow, lance, and knife blades of distinctive forms, pit huts, drinking tubes, wedges, bark removers, and many scrapers distinguishes the *Yahgan* from their predecessors, while the use of single-barbed harpoons (though slightly modified), bark canoes, sinkers, bird-bone awls and beads, and the same food habits were common to both. This seeming blend of two cultures does not appear to have occurred along Beagle Channel, where the transition is abrupt.

There are no later changes, except for the introduction of the saw-toothed spear, possibly in historic times.

ANTIQUITY

The structure of the Beagle Channel middens and the beach deposit on which they rest shows that the land has risen about 15 feet (4.5 m.) since the first occupation of the sites, and 2½ feet (0.75 m.) since the introduction of the *Yahgan* culture. As stone-tipped arrows, indicating the *Yahgan* culture, were reported in this district in 1624, the 2½-foot change must represent over 300 years, so, if the uplift was constant—and there is some reason to believe it was—in this case the total age of the deposits cannot be less than 1,800 years.

Lothrop (1928, p. 197), by estimating the population of a district, the volume of the middens, and the consequent rate of deposit, calculated the age of the middens to be between 1,300 and 2,600 years, and gave 2,000 as an approximation.

Along the north shore of the Strait, 190 miles to the north, there is evidence that the land has risen 42½ feet (13 m.) above sea level since human occupation of the section began. If the land rose at the same rate as at Beagle Channel, 5,100 years is the minimum antiquity of the oldest cultures. Estimates of 5,400 and 3,000 years were secured by calculating the rate at which the cave deposits had accumulated since the first occupants disappeared and the sloth and native horse became extinct.

Other geologic evidence of antiquity is that since the sloth hunters occupied Fell's Cave on the Río Chico that stream has dropped 16 to 19½ feet (5 to 6 m.). Furthermore, it has been shown that during the first culture period, shortly before the sloth and native horse disappeared from the grasslands, there was a violent volcanic eruption along the present Chilean-Argentine boundary, apparently the last such activity in that area. Finally, and perhaps most important, human occupation has been correlated with the recession of a glacial lake, Laguna Blanca. This lake, which lies in a basin between the third and fourth (final) moraine systems, was studied, mapped, and described by Caldenius (1932). Within this basin, well below the terraces marking the old lake levels, is a shelter which was occupied by Indians almost immediately after the recession of the lake. The artifacts on the cave bottom, beneath 8 to 9 feet (2.4 to 2.7 m.) of soil, are of the third culture period, which was, however, almost immediately succeeded by the fourth period, showing that the lake had receded only shortly before the arrival of that culture at this site.

The antiquity indicated by the glacial evidence is not clear. De Geer believed he had correlated the Patagonian varve series with the Scandinavian series and that Caldenius' fourth or finiglacial moraines were contemporaneous with the Scandinavian finiglacial. Regardless of the validity of such claims, it is worth noting that, in commenting on the territory that has been freed from ice since the fall in the lake level, Caldenius states (1932, p. 147):

> Within the two youngest [moraines] the original glacial topography is many times so well preserved that one is astonished not to find the glacier still in activity.

PATAGONIAN CULTURES

Argentine Patagonia has no stratigraphic studies for comparison with those made in the south. The large collections of surface material, published and unpublished, show marked uniformity north to the Río Negro. Most of the projectile and knife points are identical or similar to those of the fourth period at the Strait, except for slight differences due, perhaps, to the better quality of stone available. Small *Ona* type arrow points also occur to the Río Negro, but around and north of Deseado are other small arrow points differing from the *Ona* type. The latter are unknown farther south. Points belonging to the third period at the Strait have been found at scattered localities up to Comodoro Rivadavia, and similar points occur in the Chubut Valley. In northern collections they occur in about the same very small proportion as in surface collections gathered near the Strait. Points of the first period have not yet appeared in the collections. Various types of scrapers and bolas stones give additional evidence of the general archeological uniformity. It seems probable that northern Patagonia will produce a sequence similar to that found at the Strait.

The distinctive features of the north—the greater number of potsherds (some of them decorated with simple incised or punctate markings), the drills (abundant in the north and almost unknown at the Strait), and rare pieces such as polished celts (Vignati, 1923 b), perforated club heads (Outes, 1905, p. 437), curiously shaped objects (referred to by Outes (1916) and Vignati (1923 a) as ceremonial axes), and engraved stone tablets (Outes, 1905, p. 469)—may all represent elaborations of the late periods. How the numerous cave paintings and petroglyphs relate to the chronology remains to be seen (Aparicio, 1935).

CHILOÉ ISLAND

Brief comments may be included on Chiloé Island and the adjacent area. Along the shores of the Gulf of Reloncavi and Corcovado and down the eastern side of Chiloé are many large shell middens. As yet we know all too little about their contents. The absence of pressure-flaked stonework in the lower portions of the deposits and the presence of a few artifacts duplicating those found farther south show that the culture was identical to that in *Alacaluf* territory. Later refuse, yielding pressure-flaked points of a type absent farther south and on the Argentine side, drills and polished celts (pl. 12), suggests influence from the Chilean mainland. Pottery is rare, and may antedate the arrival of the Spaniards by only a short time.

RESEARCH PROBLEMS

Perhaps the most important task of the future is to learn more of the oldest cultures, the first two periods discovered at the Strait. This will have to be done in Argentine territory, where a further check on the correlation of the cultural and glacial periods can be made.

One of the most puzzling problems is the origin of the *Yahgan* culture. Its distinctive stonework has not yet been found anywhere north of the Strait. Its pit house, impractical in the western archipelago but suited to the drier, windy country east of the mountains, has never been noted north of Elizabeth Island in the Strait. To understand this culture, perhaps the first task should be a careful study of the house pits on northern Tierra del Fuego.

A third great need is to investigate fully the Chilotan middens. This is bound to be a tedious task, which will yield little in material specimens, yet the information gained may clarify the relationship between the oldest coastal cultures of northern and southern Chile. (See Bird, 1943, p. 309.)

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Ambrosetti, 1903; Aparicio, 1935; Bird, 1938, 1943; Caldenius, 1932; Fletcher, 1652; Guiñazú, 1936; Gusinde, 1921; Lothrop, 1928; Lovisato, 1885; Nordenskiöld, 1900; Outes, 1904 a, 1905, 1916; Spencer, 1931; Vignati, 1923 a, 1923 b, 1927, 1933.

PLATE 5.—**Southern Patagonian landscapes.** *Top:* Río Chico Valley, Chile, near Argentine border. Bone fragments of Period 4 camp refuse in foreground. *Bottom:* East side Laguna Blanca, Chile. Rock shelters are common in these canyons. (Courtesy Junius Bird.)

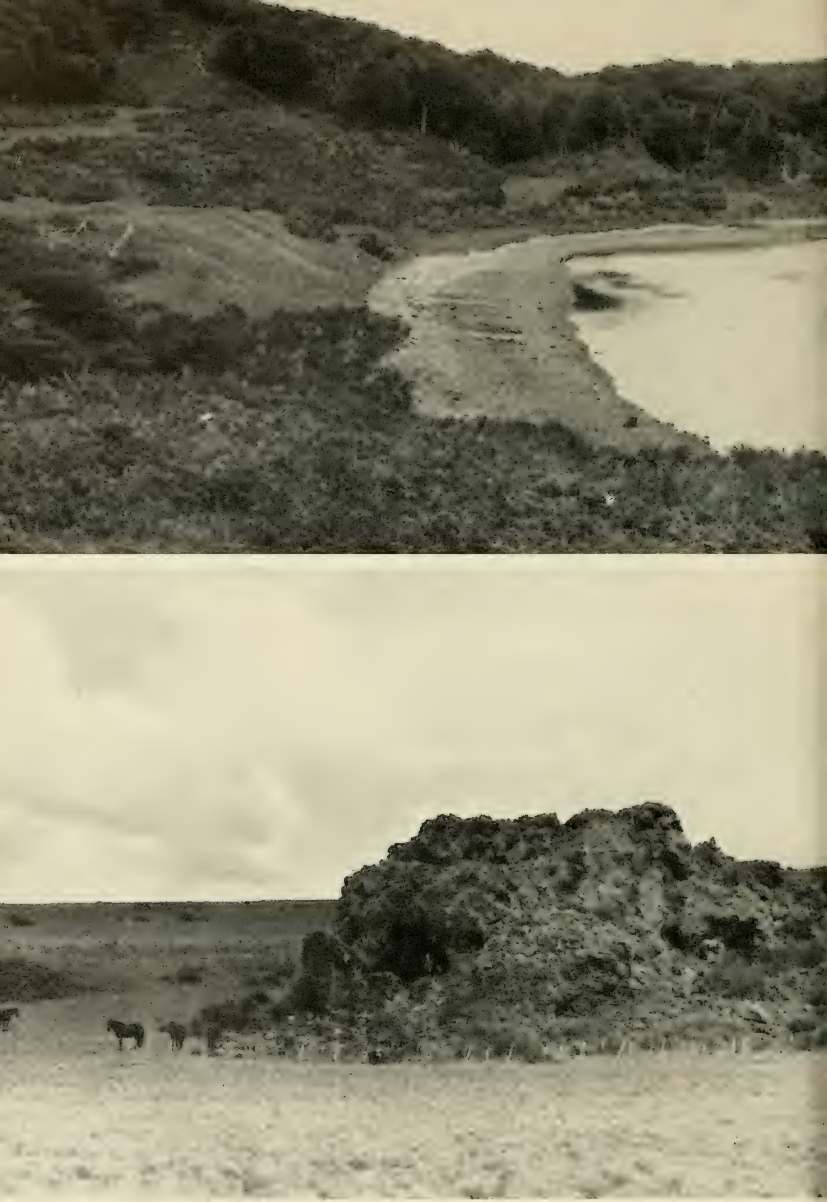

PLATE 6.—**Archeological sites, southern Chile.** *Top:* Midden site, north side of Navarino Island. Canoe runways and markings on beach below midden. *Bottom:* Cave in volcanic outcrop, Chile-Argentine boundary, containing extinct horse bones and a few artifacts. (Courtesy Junius Bird.)

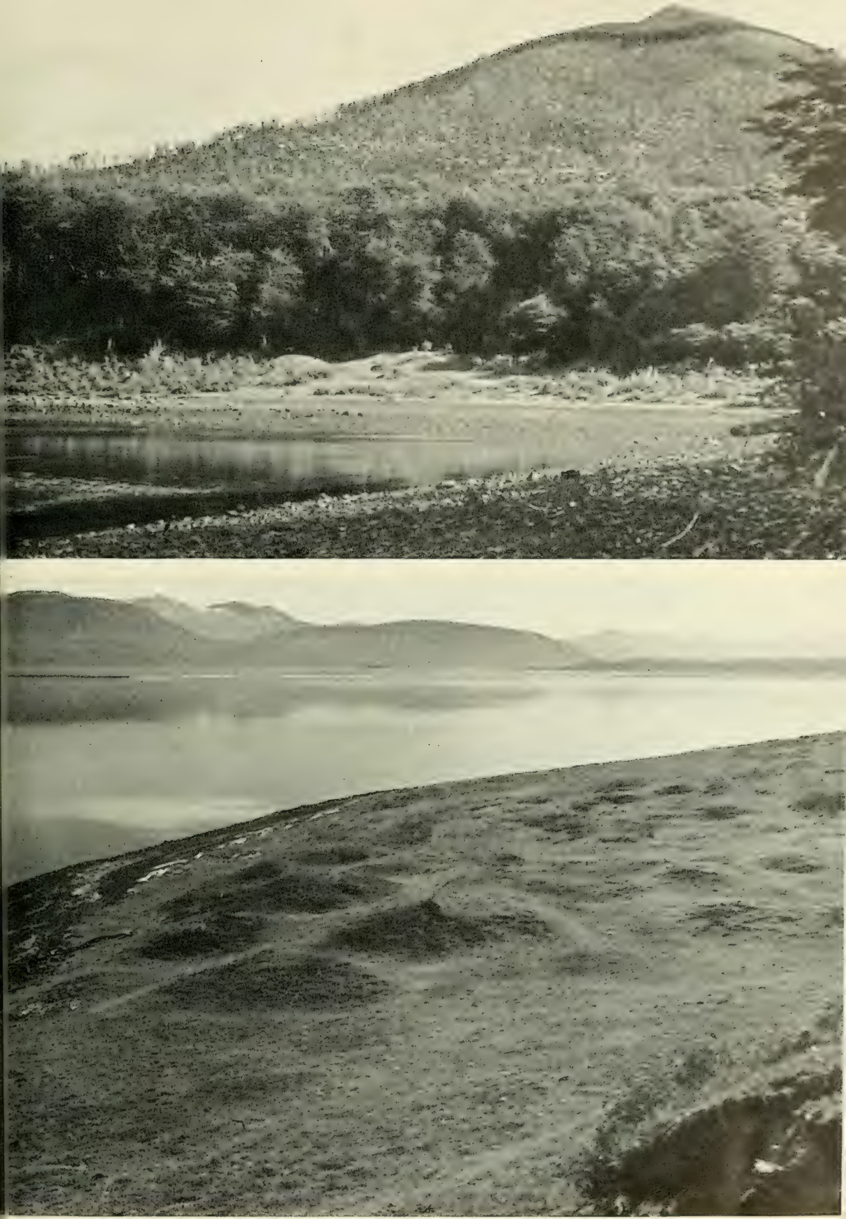

PLATE 7.—**Archeological sites, Beagle Channel, Tierra del Fuego.** *Top:* Midden (center of picture), Navarino Island. *Bottom:* Navarino Island midden. Depressions mark pit house locations. (Courtesy Junius Bird.)

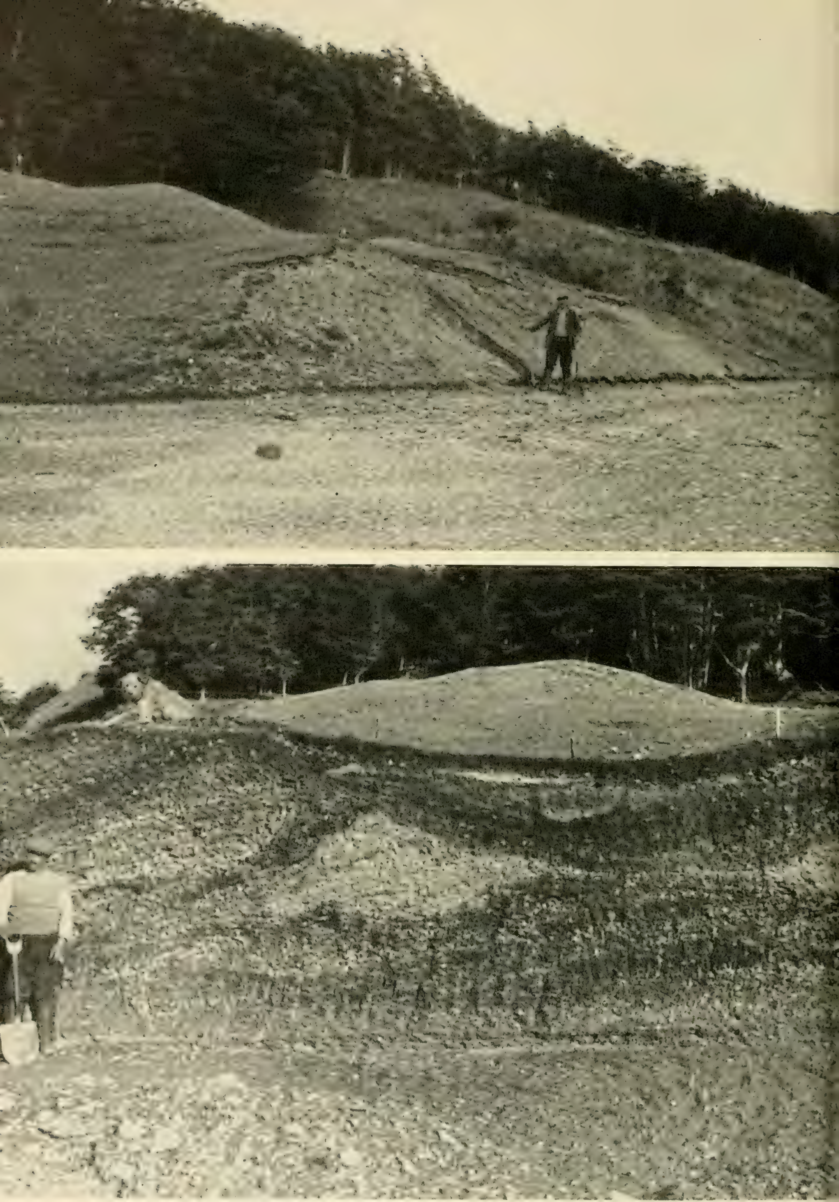

PLATE 8.—**Archeological sites, Beagle Channel, Tierra del Fuego.** *Top:* Midden, Puerto Pescado, Navarino Island. *Bottom:* Cross section of above midden. (Courtesy Junius Bird.)

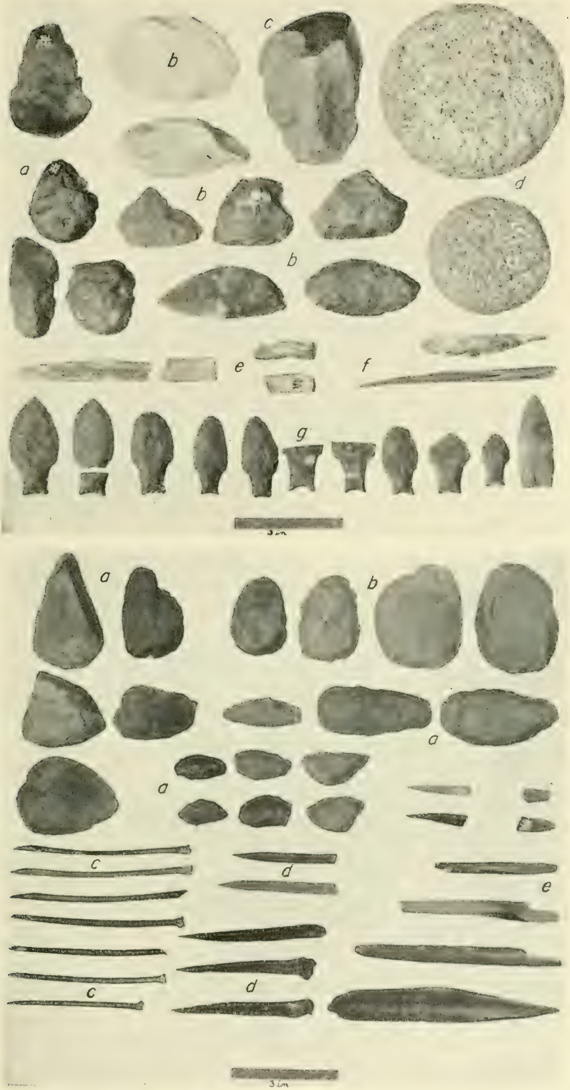

Plate 9.—**Stratigraphy, Strait of Magellan.** *Top:* Period 1 artifacts. *a,* End scrapers; *b,* side scrapers; *c,* chopping stones; *d,* rubbing stones; *e,* early type chipping tools (?); *f,* bird awls; *g,* early type stemmed projectile points. *Bottom:* Period 2 artifacts. *a,* Side scrapers; *b,* end scrapers *c,* bird awls; *d,* bone awls; *e,* bone points. (After Bird, 1938, figs. 27, 26.)

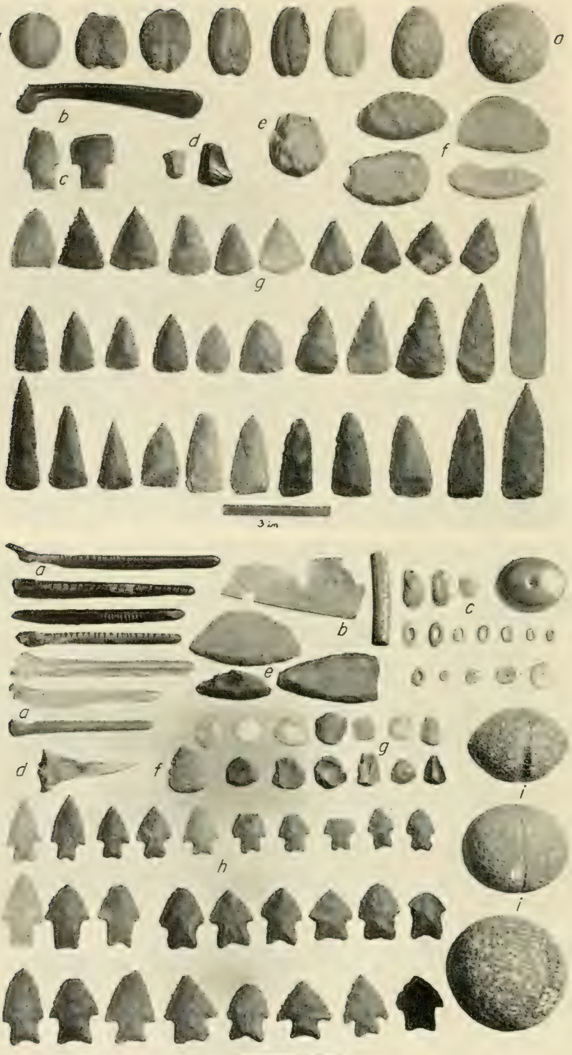

PLATE 10.—**Stratigraphy, Strait of Magellan.** *Top:* Period 3 artifacts. *a,* Bolas; *b,* bone scraper; *c,* straight-stemmed projectile points (very rare); *d,* hafted scrapers (very rare); *e,* end scrapers; *f,* side scrapers; *g,* stemless projectile and knife points. *Bottom:* Period 4 artifacts. *a,* Chipping tools; *b,* incised bone; *c,* beads and ornaments; *d,* bone awls; *e,* side scrapers; *f,* end scrapers; *g,* hafted scrapers; *h,* Patagonian projectile points and hafted knives; *i,* bolas. (After Bird, 1938, figs. 25, 24.)

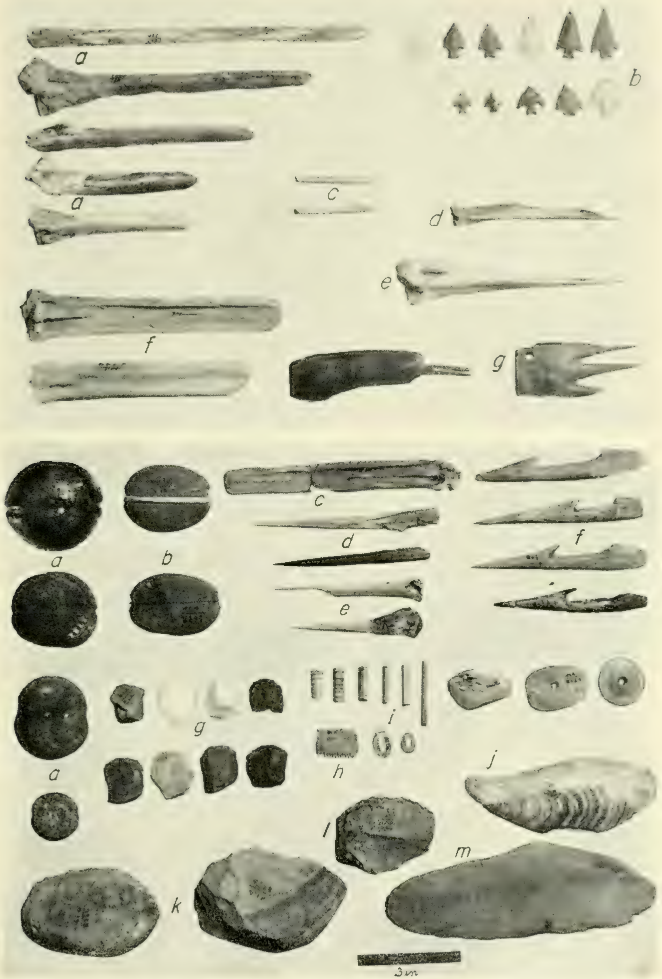

PLATE 11.—**Stratigraphy, Strait of Magellan.** *Top:* Period 5 (*Ona*) artifacts. *a*, Chipping tools; *b*, *Ona* projectile points; *c*, beads and ornaments; *d*, bird awls; *e*, bone awls; *f*, bark remover (?), early; *g*, combs. *Bottom:* Beagle Channel, shell-knife culture artifacts. *a*, Bolas; *b*, fishline sinkers; *c*, bark remover (?), early; *d*, bone awls; *e*, bird awls; *f*, round-shank harpoons; *g*, hafted scrapers; *h*, comb; *i*, beads and ornaments; *j*, shell knives; *k* chopping stones; *l*, side scrapers; *m*, whetstones. (After Bird, 1938, figs. 23, 21.

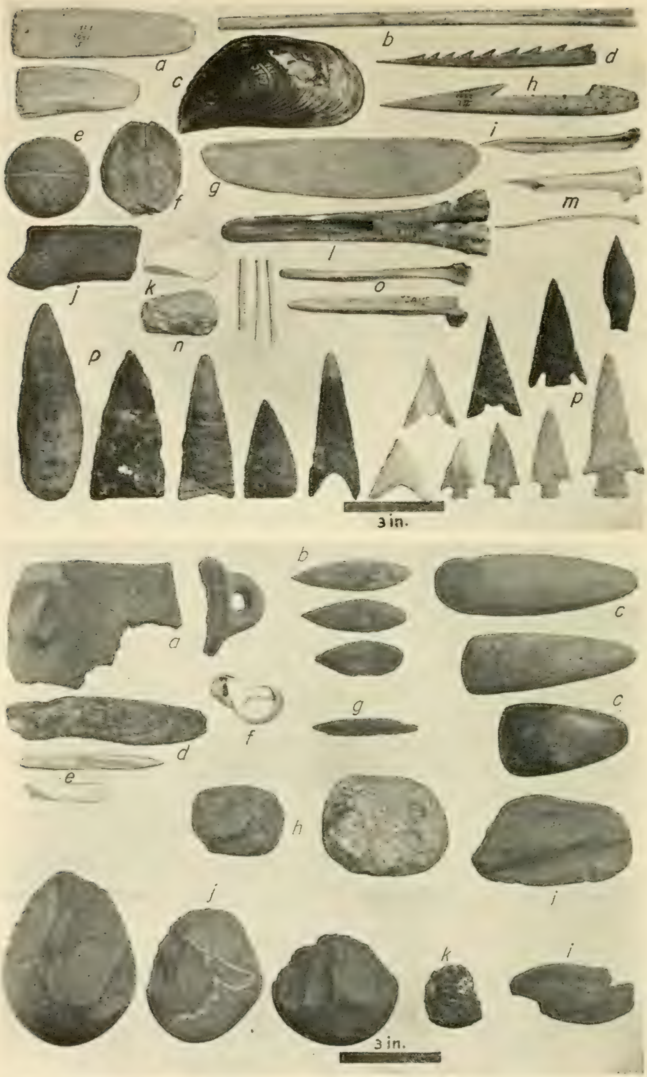

Plate 12.—**Stratigraphy, Strait of Magellan.** *Top:* Beagle Channel, recent period. *a*, Whalebone wedges; *b*, drinking tube; *c*, shell knives; *d*, fish spear; *e*, bolas; *f*, fishline sinkers; *g*, whetstones; *h*, flat-shank harpoons; *i*, bone awls; *j*, side scrapers; *k*, end scrapers; *l*, bark remover, late; *m*, bird awls; *n*, beads and ornaments; *o*, chipping tools; *p*, projectile and knife points. *Bottom:* Early and late Chiloé artifacts. *a*, Potsherds; *b*, projectile points; *c*, polished celts; *d*, whalebone wedges; *e*, pointed shell tools; *f*, beads and ornaments; *g*, hafted drill; *h*, flaked sinkers; *i*, whetstones; *j*, chopping stones; *k*, flaked tool (?). (After Bird, 1938, figs. 20, 22.)

THE ARCHEOLOGY OF THE GREATER PAMPA

By Gordon R. Willey

GEOGRAPHY AND ENVIRONMENT

The country lying north of the Río Negro, east of the high Andes which separate Chile from Argentina, west of the Paraná River, and, roughly, south of parallel 32°50′ S., is considered in this paper as the Greater Pampa (map 1, *Nos. 1E*, *1F*, *2*). It embraces, geographically, the central one-third of the Argentine Republic. Beginning at the south, it includes a portion of the Territory of Río Negro, the Territories of Neuquén and La Pampa, the Province of Buenos Aires, rather vaguely defined lowland portions of the Provinces of Córdoba, San Luis, and southern Santa Fé, and most of the Province of Mendoza (map 3). The natural environment is varied. On the extreme west are the Cordilleras and eastern piedmont of the Andes. The latter slope down gradually to the Dry Pampa of western La Pampa and San Luis and the lowlands of Córdoba. Continuing east, the Dry Pampa gives way to the Humid Pampa of eastern La Pampa and Buenos Aires. These plains were originally covered with clusters of scrubby trees and grasses, a vegetation type known as "monte." Toward the southeast, in the Province of Buenos Aires, the rainfall is heavier and the summers are cooler. Tall prairie grasses were probably once the most important cover in this section (James, 1942, pp. 284 ff.).

These Pampa lands with their heavy soils were not adapted to cultivation with Indian techniques, and the region offered a barrier to both the Andean and Tropical Forest types of horticulture which, in aboriginal times, bordered the Pampa on the north. Exceptions to this are the settlements at the Paraná Delta, where the land is wet, marshy, and favorable to cultivation, and the inter-Andean valley settlements of Mendoza, where a highland type of agriculture was practiced. For peoples living in either the mountains or Pampa, on a nonhorticultural level, the country offered resources sufficient to sustain numerous small nomadic or semisedentary groups. The rhea and the guanaco were the most important food animals. These were supplemented by deer and otter, and various small birds. Roots, wild fruits, and berries were gathered; and fish and shellfish formed a large part of the diet of the river and coastal groups (Joyce, 1912, p. 246).

SOURCES

With but a few exceptions, the present knowledge of Pampa archeology is due to the persistent efforts of Argentine scientists over a period of a great many years. Beginning with F. Ameghino (1911 and many other titles before and after this date) there have been a succession of investigators. The present paper is based largely upon their writings. In the earlier decades Ambrosetti (1902, 1909) and Outes (1897, 1904 b, 1905, 1906 a, 1907, 1909, 1911, 1926 a) were outstanding contributors. Oliveira Cézar (1895) and Lehmann-Nitsche (1916 a) were other important authors. These were followed by L. M. Torres (1922, 1923) and more recently by an outstanding leader in the field, Vignati (1931 a, 1931 b, 1931 c, 1931 d, 1937 a, 1937 b, 1937 c, 1939 b, 1940, 1940–41, 1942). Other able and well-known archeologists and anthropologists of the contemporary scene are Serrano (1930, 1936, 1940 a, 1940 b, 1940 c, 1940 d, 1940 e), Márquez Miranda (1934), Frenguelli (1941), Frenguelli and Aparicio (1932), Aparicio (1935, 1940, 1942), Greslebin (1928 a, 1928 b), Basavilbaso (1937 a, 1937 b), Bruzzone (1931), and Salas (1942).

Métraux (1929) conducted important studies in Mendoza, and has been followed in this region by the Argentine scientist Rusconi (1940 a, 1940 b, 1940 c, 1940 d, 1941 a, 1941 b, 1941 c). The Swedish investigator Boman (1908, 1920) and the North Americans, Hrdlička (1912), Holmes (1912), and Lothrop (1932 b), must be added to this list. This by no means exhausts the references to the literature on Pampean archeology. However, from the sources cited the reader may orient himself in the subject.

THE BASIC CULTURE OF THE GREATER PAMPA

The basic culture throughout most of the Greater Pampa area is founded on a hunting and gathering economy. The artifactual remains and the nature and disposition of archeological sites imply a simple, conservative culture. In spite of subareal variations, the basic culture traits are similar or identical for the entire area. That this widespread Pampean culture once existed in a pure state is an hypothesis. Documentation, which ranges from the middle 16th to the early 19th century, reveals alien influence at different periods. Most early observers recorded a culture which had been influenced by important European innovations. They also reveal late *Araucanian* influences which modified the simpler culture of the Pampa. Beginning in late pre-Conquest times, traits such as metal ornaments, from the northwest, and, possibly, some knowledge of maize cultivation, from both the northwest and the northeast, were filtering into the Pampa. Because archeological sequences are imperfectly known for the southern Andean and the Paraná River areas, as well as the Pampa, it is not easy to factor out foreign elements from the old culture of the Pampa (Cooper, 1941, 1942 a, 1942 b).

Stonework.—Because of the importance of hunting throughout the Pampa, chipped-stone weapons and implements were universal. Stone-tipped projectiles were used to kill game, and scrapers of all types to clean and treat hides. Authorities agree that the lithic industry is an old Pampean trait complex but disagree as to its antiquity (Hrdlička, 1912). An Argentine paleolithic, correlated with pre-Pleistocene geological periods, is still seriously considered by Argentine scientists (Frenguelli, Handbook of South American Indians, vol. 5). Various sites along the Atlantic coast, and elsewhere, have been classed as paleolithic and equated with the geologic Tertiary. A crude hand-ax or chipped pebble is the principal artifact type for this paleolithic (Ameghino, F., 1911). Holmes (1912), who studied a number of these hand-axes gathered by Hrdlička from beach sites between the mouth of La Plata and Bahía Blanca, considered them to be cores, from which flakes had been struck for the manufacture of scrapers and projectile points, and not utilitarian objects. Outes (1909) considered them to be artifacts but of a relatively recent age. Hrdlička (1912) also denied that the geological associations at the sites indicated the great antiquity claimed.

Lack of demonstrable vertical series makes it necessary to discuss Pampa archeology in typological and distributional terms. This does not mean that all archeological material gathered to date can be subsumed in a brief, recent period. Leaving aside paleolithic claims, it is probable that there is considerable time depth to the basic culture of the Pampa.[1]

Considered as a single, undifferentiated horizon, the chipped-stone industry presents a number of weapon and utensil types, most of which occur throughout the Greater Pampa, although with some differentials in distribution. The forms include small and large, stemmed and unstemmed projectile points, knives, a variety of scrapers, drills and punches, crude grooved axes, gravers, and flake knives. They were made by percussion and percussion combined with pressure flaking. In competent workmanship and their moderate abundance, these artifacts are, as Holmes (1912) pointed out, comparable to the stonework of the Middle Atlantic States of North America.

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[1] In fact, for the present, a horizontal segregation of sites in Buenos Aires Province suggests a pre-ceramic to ceramic sequence to Outes (1897). His differentiation between talleres (workshops for flint tools), without pottery, and paraderos (sites), with pottery, could be interpreted sequentially instead of functionally.

Chipped stone is better developed in the southern Pampa than the northern region around Buenos Aires. Large, carefully chipped leaf-blade artifacts, especially stemmed projectile points, are characteristic of the Río Colorado and Río Negro country, but the common points of the north Pampa are small, stemless, and triangular. The hand-ax, of paleolithic mention, is a feature of the north but is lacking in the south. Plano-convex scrapers are present in the southern Pampa, but a notable northern form, the small hafted duck-bill scraper (fig. 1, *top row*), is only occasionally found there.[2]

There is less areal differentiation of ground stonework than of projectile types. The bolas is universal in the Greater Pampa. Bolas stones vary in size, and are spherical, biconical, or ovoid. They were attached to the thong by a medial or end groove, or were tied in a small hide bag. The wide archeological distribution of the bolas in southern South America suggests antiquity.[3] Numerous grinding and pounding tools in all parts of the area attest to the importance of food gathering as well as hunting in the native economy. Mortars, pestles, mullers or manos, grooved hammers, pitted hammer stones, and anvil stones are, technologically, much like those from the early horizons of the eastern United States. Polished stone lip plugs and earplugs are scattered all over the Pampa. Their original sources, or centers of distribution, were probably northern. Pipes, the origins and antiquity of which are puzzling, have a modified monitor form. They are widely distributed. Rather elaborate polished and sometimes engraved stone axes and plaques (placas grabadas) are found in the southern and southwestern portions of the Greater Pampa (Holmes, 1912; Outes, 1905).

Ceramics.—The pottery of the Greater Pampa is uniform as compared with the technologically more advanced ceramics of the Andean or Tropical Forest areas. It is medium-well to poorly made and fired, and is thicker and coarser than the Andean or Tropical Forest ware. Forms are simple bowls and subglobular bowls or jars. With very few exceptions, it is unpainted. A large percentage is undecorated. Decorative techniques include incising, punctating, "drag-and-jab" or stippled-line punctating, and textile impressing. The first three techniques in special combinations characterize subareas or cultural divisions of the Pampa. Pottery is most abundant, and is best made and most elaborately decorated in the northern part of Buenos Aires Province. Its antiquity in the Pampa cannot be known, but it is

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[2] The small hafted scraper is not common in extreme southern Patagonia until the fourth archeological period in that region. This is only shortly subsequent to the beginning of historic times. (*See* Bird, 1938.)

[3] Bird (1938) shows bolas first appearing in his third period in southern Patagonia. They became much more numerous and varied in form in his fourth period. (*See also* Bird, this volume.)

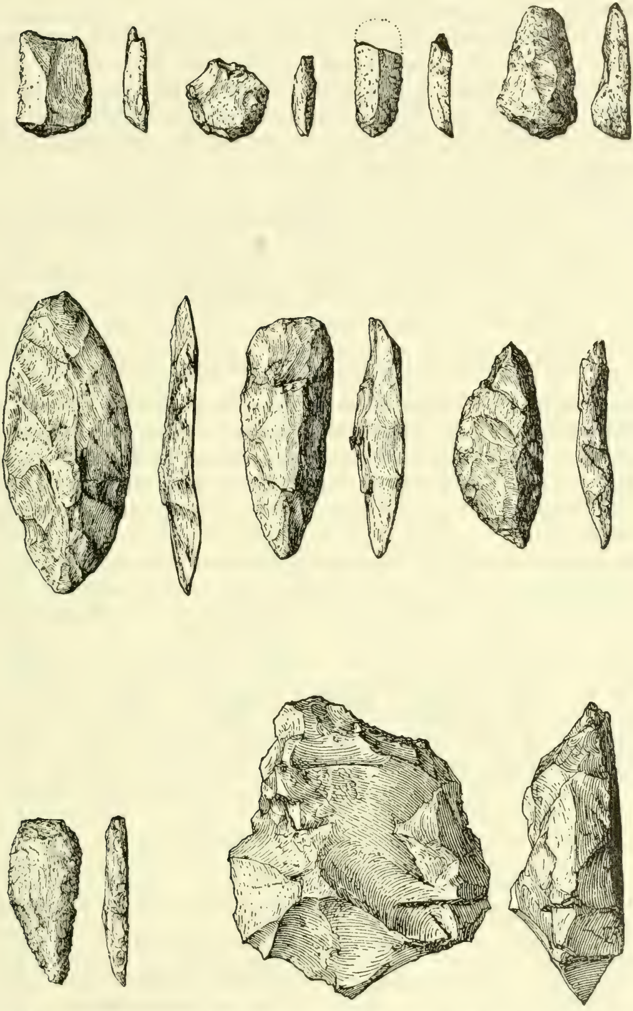


Figure 1.—Chipped-stone work from the Buenos Aires coast. *Top row:* Duck-bill scrapers from Campo Peralta and Necochea. *Center row and bottom (left):* Plano-convex blades from Campo Peralta (½ natural size). *Bottom (right):* Nucleus of quartzite from which flakes have been removed (½ natural size). (After Holmes, 1912, figs. 29, 31, 27.)

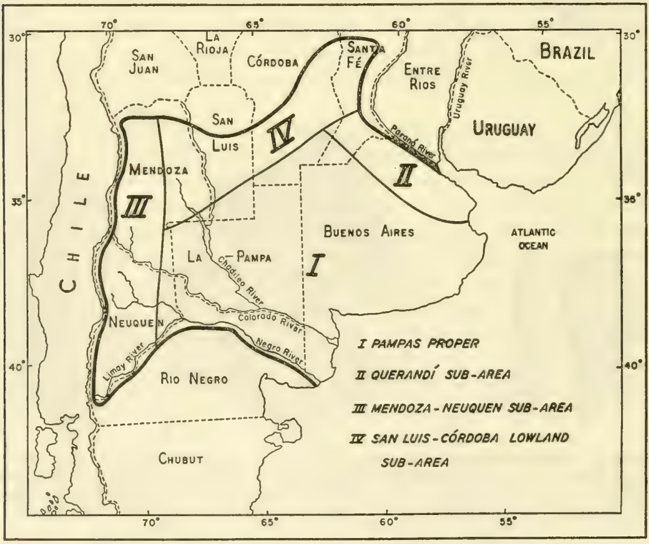
definitely pre-Conquest. Its manufacture seems to have been discontinued by 1767 (Cooper, this volume).

Miscellaneous.—Ornaments of shell and projectiles, awls, and punches of bone are found in many of the sites. More rarely, silver pins and ear ornaments and ornaments of rolled sheet copper are found. Metal objects, when not post-Conquest, are undoubtedly the result of contact with the Andean cultures to the northwest, and the objects themselves are probably trade pieces.

Dwellings and burials.—Dwellings are not known from archeology, but early accounts describe them as temporary, pole-supported structures of a kind that leaves little archeological evidence except post molds. Burials were in, or near, the midden sites or sometimes in caves. They are both secondary and flexed primary. The bones often were painted before interment.

LIMITS OF THE GREATER PAMPA ARCHEOLOGICAL AREA

The basic culture of the Greater Pampa contrasts with the cultures of adjacent areas. Its geographical limits, however, are not sharply marked; it has blended with adjoining cultures to form archeological subareas along the northwestern, northeastern, and western peripheries of the Pampa, which are included as parts of the Greater Pampa area (map 3).


70°
65°
60°
55°
30°
30°
35°
35°
40°
40°
San Juan
La Rioja
Córdoba
Santa Fé
Entre Rios
Uruguay River
Brazil
Uruguay
San Luis
IV
Mendoza
Paraná River
II
Chile
III
Buenos Aires
Atlantic Ocean
La Pampa
Chadileo River
I
Neuquen
Colorado River
Negro River
Limay River
Rio Negro
Chubut
I PAMPAS PROPER
II QUERANDÍ SUB-AREA
III MENDOZA-NEUQUEN SUB-AREA
IV SAN LUIS-CÓRDOBA LOWLAND SUB-AREA
70°
65°
60°
55°

MAP 3.—The Greater Pampa archeological area and subareas.

In northwestern Argentina, the *Atacameñan* cultures of Jujuy and Salta and the *Diaguita* or *Diaguita*-derived cultures of Tucumán, La Rioja, Catamarca, San Juan, and Santiago del Estero are Andean in type. There is no revealed archeological evidence in these provinces of simpler cultures similar or comparable to those of the Pampa. Farther south, the highlands of Córdoba and San Luis were the seat of the historic groups, the *Comechingon* and *Sanaviron*, who represent the southeastern extension of the Andean agricultural pattern into the country of the southern hunting tribes. There are a number of resemblances between the archeology of the *Comechingon-Sanaviron* region and that of the Pampa. The intervening lowlands of southern San Luis and eastern Córdoba appear as a cultural borderland and are treated as an archeological subarea.

On the northeast, the Pampa culture merges into that of the Paraná Delta and into the archeological area of the Paraná River in eastern Santa Fé and Entre Ríos. Influences of the Tropical Forest are dominant in the archeology of the Paraná and of the Delta, but the region of the historic *Querandí*, lying in northern Buenos Aires Province and southern Santa Fé, while *Guaraní* influenced, is essentially Pampean and forms another archeological subarea of the Greater Pampa.

Along the western border of the Pampa, in the mountains of Mendoza and Neuquén, is another cultural borderland or third archeological subarea. In this case the bordering sedentary culture which influenced the old Pampean pattern was probably the *Araucanian* of Chile.

The Pampa proper, the habitat of the historic *Puelche*, is the great, low-lying plains of the east and south, extending down to the Río Negro, where, theoretically, occur the archeological remains of the old, unadulterated culture of the Southern Hunters. The Río Negro is a convenient southern boundary for the Pampa, but the archeology of Patagonia, to the south, is closely related.

SUBDIVISIONS OF THE GREATER PAMPA

Pampa proper.—The archeology of the Pampa proper is well represented by the sites on the San Blas Peninsula[4] (Outes, 1907; Torres, 1922).

Stonework.—The lithic component from sites in the semiarid, desolate San Blas country consists of: Plano-convex scrapers made from flint flakes (fig. 1, *top and center rows*); both the narrow blade and the ovate leaf-form knife; expanded-base, T-form, and slender spike-form drills; and projectile points, the number of types of which intimate that the San Blas sites cover a considerable time range.[5] Unstemmed points of medium and small size are triangular or ovate, equilateral or elongated, and have straight or concave bases (pl. 13, *three top rows*). Stemmed points are similar in shape and proportions (pl. 13, *bottom row*). There are also some very small stemmed and unstemmed points of the delicately chipped type, called bird points in North America (pl. 13, *top*). A number of exceptionally large, long points are classed as spear points. Bone tools, probably employed as flint-chipping implements, were associated with the flint artifacts.

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[4] The Hucal site in La Pampa (Outes, 1904) is culturally very similar to the sites on the San Blas Peninsula.

Lip plugs and earplugs, made of local stone, and polished and engraved stone plaques, are present in the San Blas region. The plaques bear decorative figures very similar to those on some of the pottery; rectilinear zones and chevron figures, either plain or filled with fine cross-hachure, are characteristic. The engraved plaques occur south in Patagonia to the Río Deseado (Serrano, 1940 a). Bolas stones, mortars (fig. 2, *top*), mullers (fig. 2, *bottom*), and pestles were found in considerable numbers on the San Blas Peninsula.

Ceramics.—The pottery of San Blas (pl. 14) is fairly well fired and constructed, and is either tempered with crushed quartz or appears to be temperless. Forms are subspherical. Teat-shaped pot supports, used in threes (?) or fours (?), occur. Decoration is on the vessel exterior, arranged in a band just below the rim. The following variations are noted: Simple fine-line incisions; simple incisions combined with rows of small punctations; simple incisions with punctations used as filler for various designs; deep groovelike incisions sometimes combined with deep punctations; and semilunar punctations, made with an instrument or, possibly, the fingernail. Designs are either geometric or crudely drawn forms which cannot be interpreted with certainty as naturalistic elements.

L. M. Torres (1922) has postulated two ceramic periods of the San Blas Peninsula upon the basis of design evolution and relationships to other areas. He connects the fine-line incised designs with the ceramic and stone decorations of Patagonia, and believes them to represent the earlier period. He relates the grooved incising to the Buenos Aires coast and makes it a second period. The geographic connections are indisputable, but the proposed sequence awaits stratigraphic demonstration.

Burial.—Simple interment was practiced in the Pampa. When burials were secondary, the skeletons must have been cleaned of flesh

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[5] Bird, this volume, notes that projectile point types of his third and fourth southern Patagonian prehistoric periods are found in northern Patagonia. The unstemmed points of medium size of the Pampa proper are like those of Bird's third period. The stemmed triangular points match with those of his fourth period, and the small, stemmed bird points resemble the *Ona* type. The small triangular stemless point with a concave base, common in the Pampa, is apparently not a part of the southern Patagonian series.

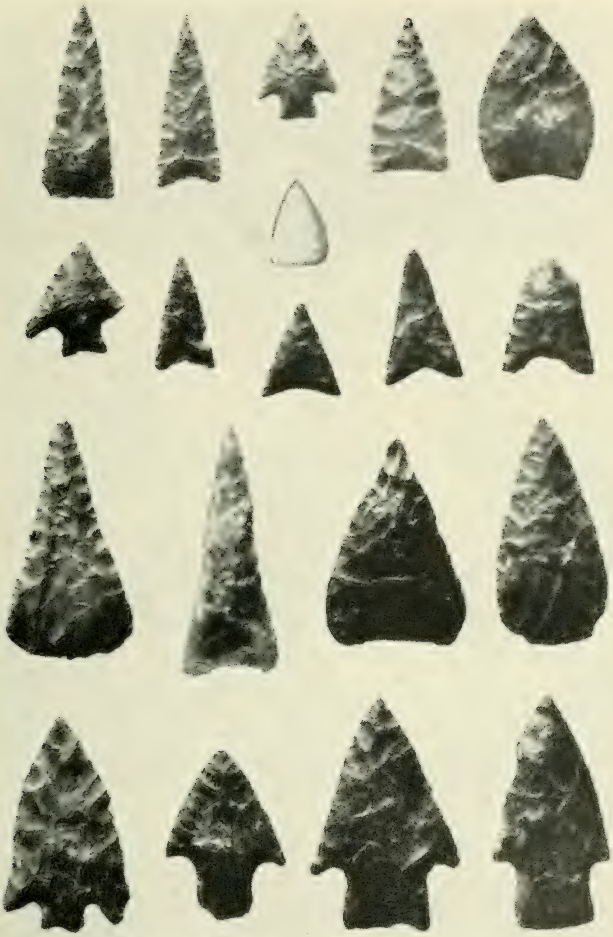

Plate 13.—**Projectile points of the Pampa proper.** Vicinity of San Blas, Buenos Aires. *Two top rows:* Small stemless and stemmed triangular form (common in north Pampa). *Third row:* Large stemless form (similar to Bird's, 1938, third Magellanic period). *Bottom row:* Medium-sized stemmed triangular form (similar to Bird's, 1938, fourth Magellanic period). (4/5 natural size.) (After Holmes, 1912, pl. 13.)

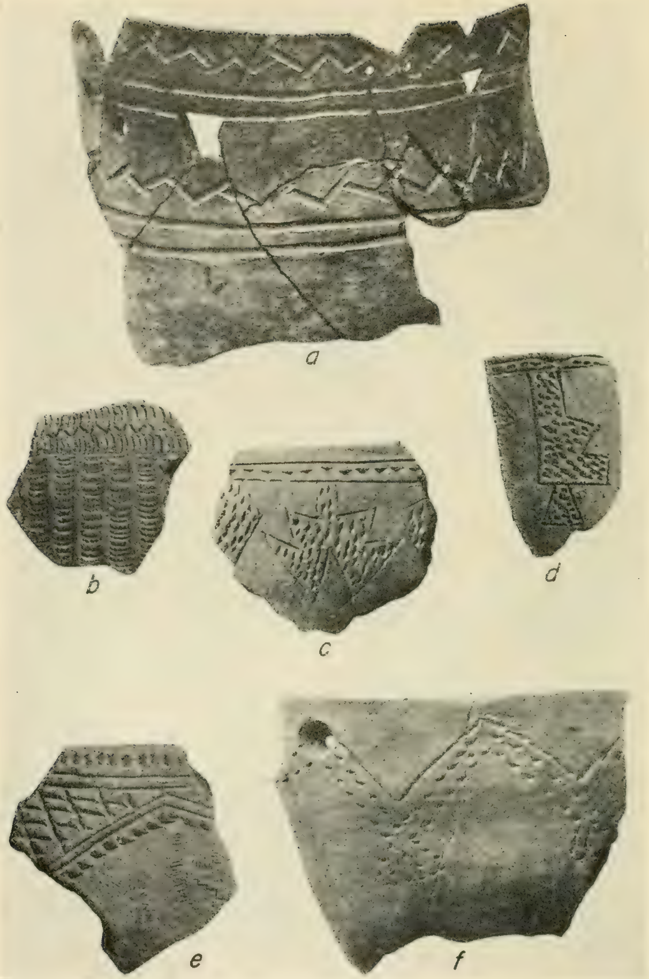

PLATE 14.—**Sherds from San Blas Peninsula, Buenos Aires Province.** *a*, Grooved-incised decoration; *b*, semilunar punctations; *c*, *d*, fine-line incisions with zoned punctations; *e*, *f*, fine-line incisions combined with cross-hachure and rows of punctations. (After Torres, 1922, figs. 39, 40, 42, 43, 44, 45.)

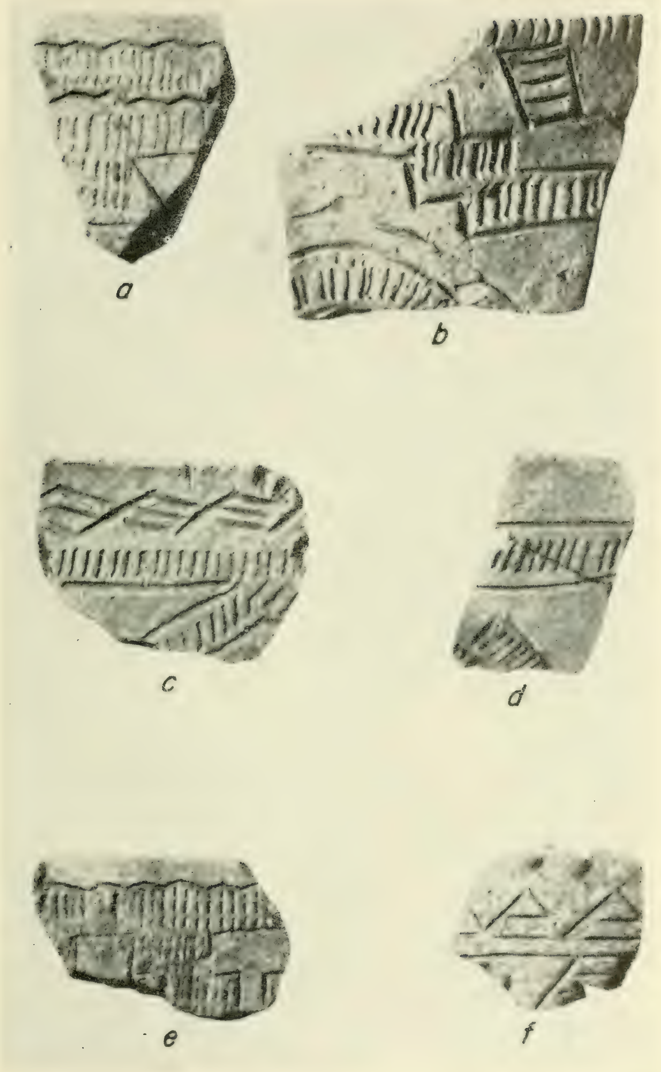

PLATE 15.—**Querandí sherds.** Punta Piedras, Buenos Aires Province. *a, b, c, d,* Semilunar or elongated punctations within grooved-incised zones; *e,* punctations in incised zones; *f,* incisions. (After Vignati, 1931 a, pls. 5, 6, 8.)

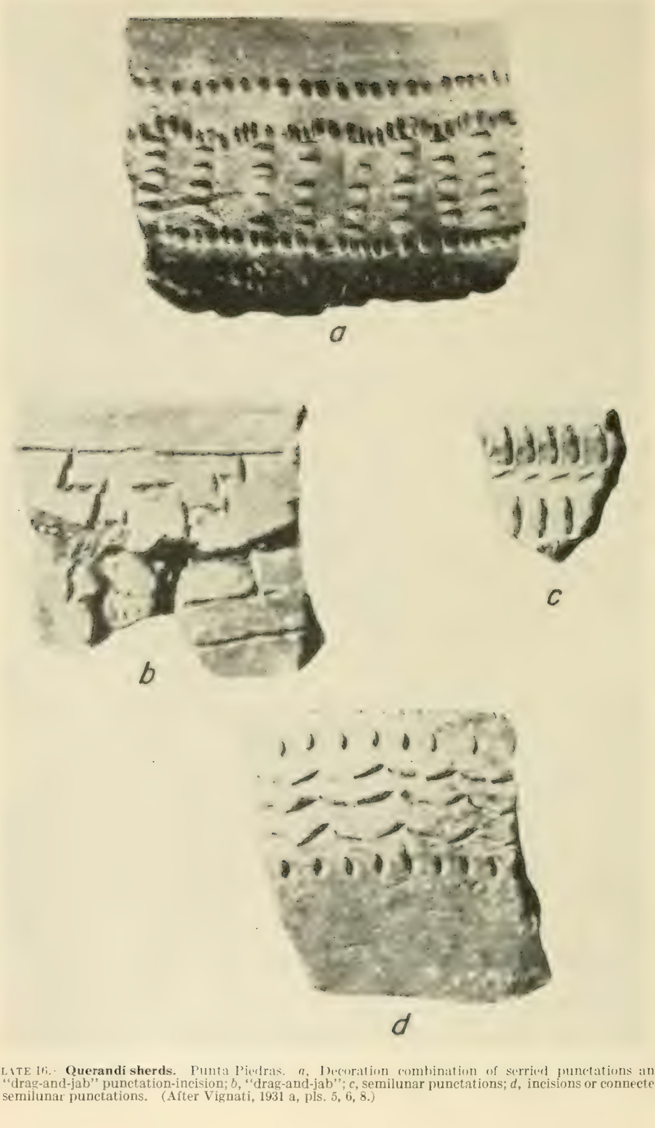

PLATE 16.—**Querandí sherds.** Punta Piedras. *a,* Decoration combination of serried punctations and "drag-and-jab" punctation-incision; *b,* "drag-and-jab"; *c,* semilunar punctations; *d,* incisions or connected semilunar punctations. (After Vignati, 1931 a, pls. 5, 6, 8.)

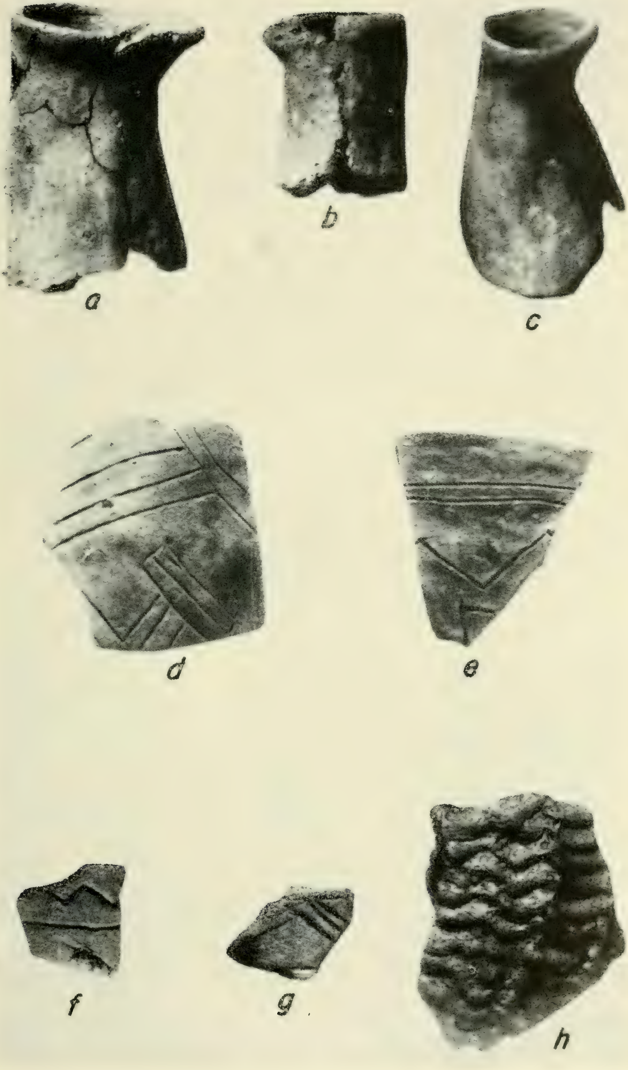

PLATE 17.—**Querandí sherds.** Punta Lara, Buenos Aires Province. *a, b, c,* "Tubulares"; *d, e,* fine-line incision; *f, g,* grooved-incisions; *h,* fingernail imbricated sherd. (½ natural size.) (After Bruzzone, 1931 pls. 3, 5.)

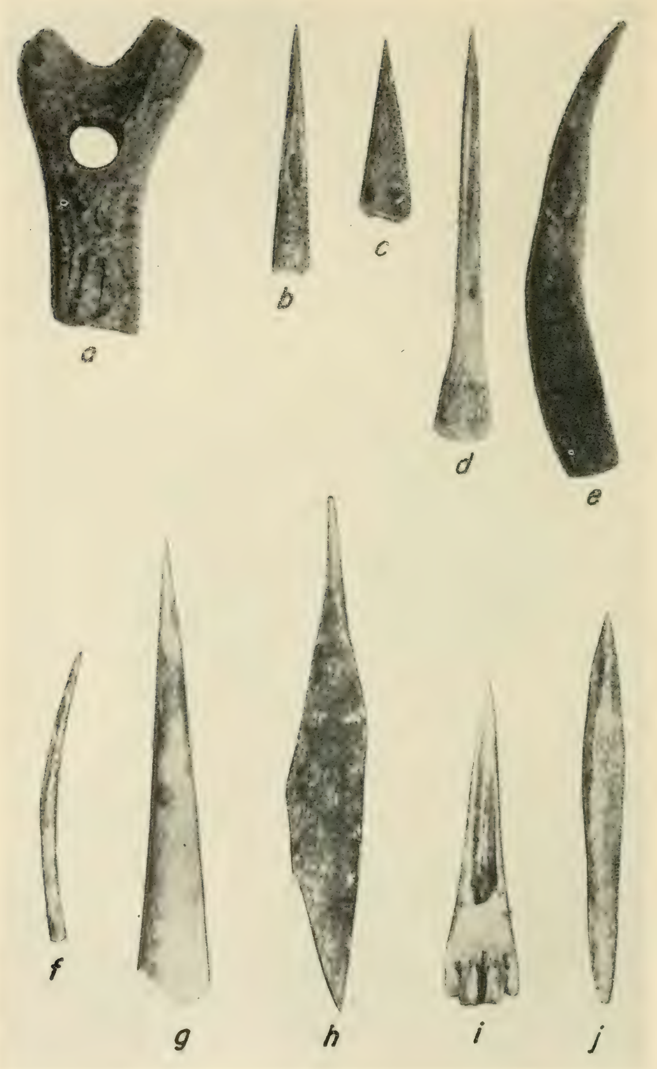

PLATE 18.—**Querandí bone artifacts.** Arroyo Sarandí, Buenos Aires Province. *a*, Shaft straightener; *b–d*, socketed lance point (*b* is 3 in., or 7.5 cm.); *e*, antler punch or tapping tool (10⅝ in., or 27 cm.); *f–j*, bone awls of various shapes and sizes (*h* is 4½ in. or 11.5 cm.). (After Lothrop, 1932, figs. 71, 72.)

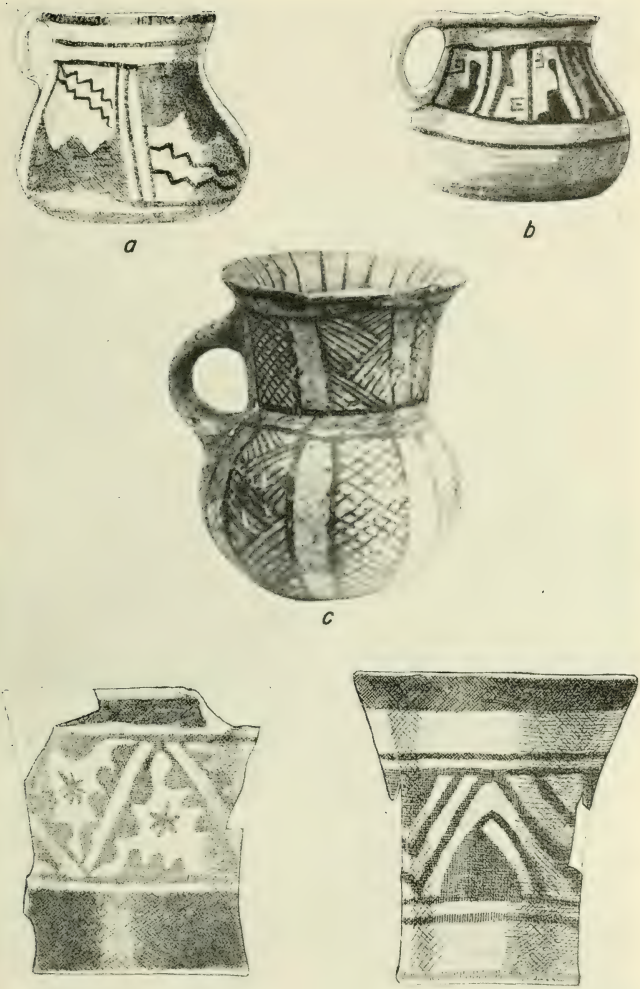

PLATE 19.—**Pottery, Mendoza and Angol, Chile.** *a, b, d, e,* Viluco style; *c, Araucanian* style. (*a, b, d, e,* after Métraux, 1929, pls. 5, 7; *c,* courtesy D. S. Bullock.)

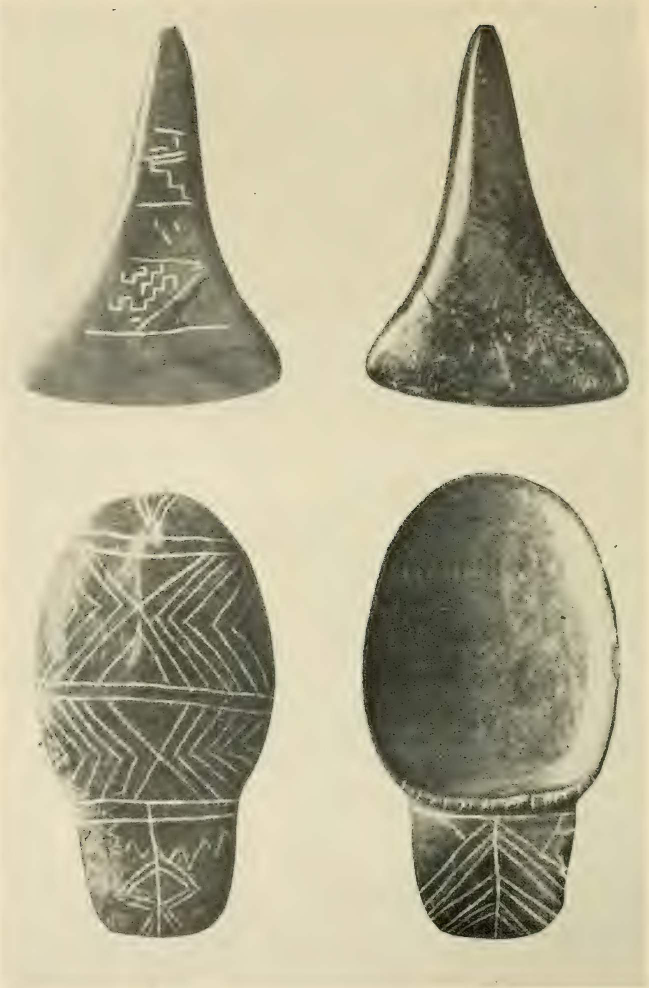

PLATE 20.—**Polished stone artifacts.** *Top:* Ax with engraved designs from Aguada del Chañar, Río Negro. (Length 4 in. or 9.1 cm.; width 2½ in. or 6.1 cm.; thickness ¼ in., or 8 cm.) (After Vignati, 1931 b, plate opposite page 174.) *Bottom:* Offertory basins from Mendoza. (Length 8½ in., or 22 cm.; width 5 in., or 12.3 cm.; depth of basin 1 in., or 2.4 cm.) (After Rusconi, 1941 a, figs. 6, 7.)

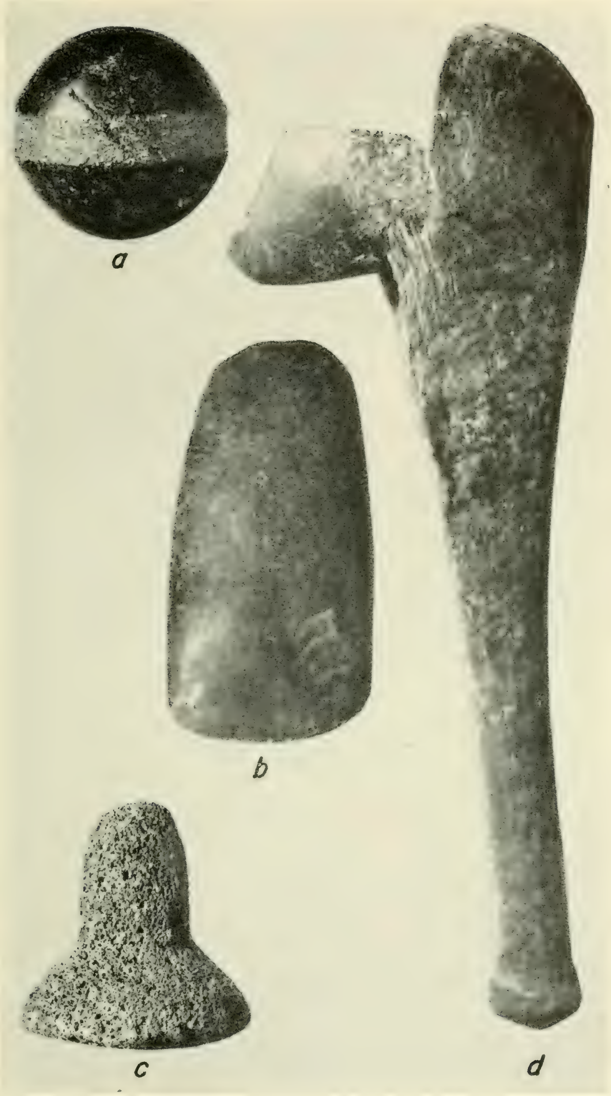

PLATE 21.—**Stone artifacts from Neuquén.** *a*, Bola (½ natural size); *b*, celt (⅘ natural size); *c*, sobador (3/10 natural size); *d*, hafted celt from Chos Malal salt mine (⅓ natural size). (After Aparicio, 1935, pls. 20, 21, 22.)

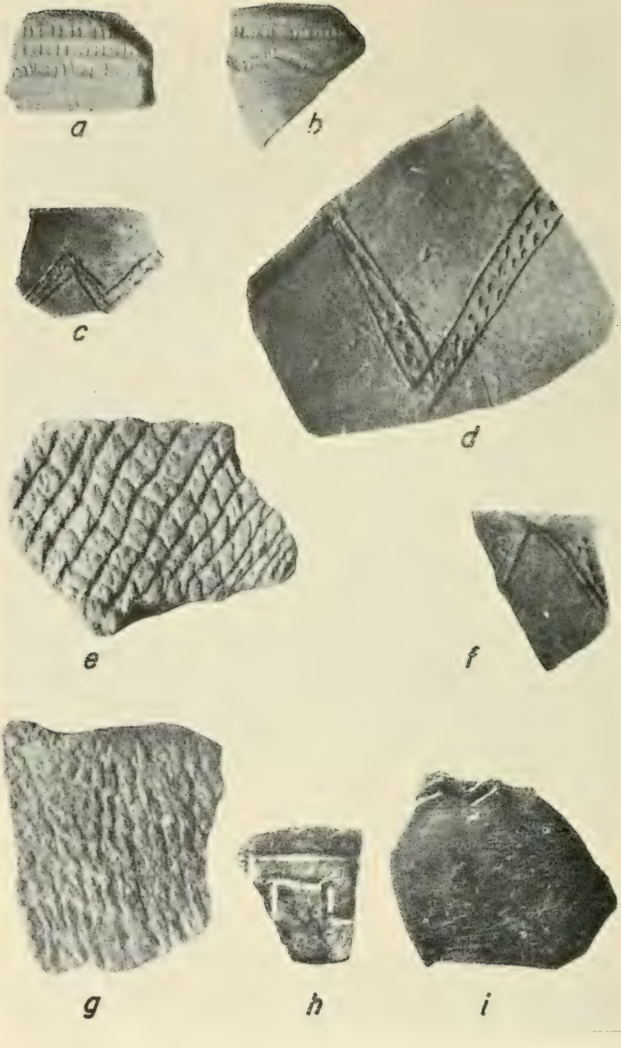

PLATE 22.—**Sherds from Córdoba.** *a, b,* "Drag-and-jab;" *c, d, f,* zoned punctations; *e,* so-called net-marked; *g,* net-marked or cord-marked (?). From Los Porongos, Mar Chiquita area. (After Aparicio, 1942, pls. 1, 2, 3.) *h, i,* Incised sherds. From Villa Maria. (After Outes, 1911, figs. 102, 103.)

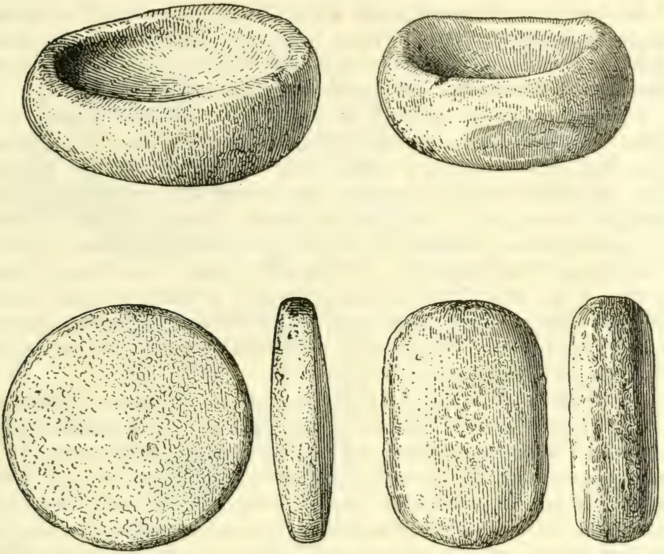

FIGURE 2.—Ground-stone work from the Buenos Aires coast. *Top:* Mortars of sandstone from Blas and Viedma (1/6 natural size.) *Bottom:* Mullers or manos of granite and sandstone from Viedma and San Blas (1/3 natural size). (After Holmes, 1912, fig. 35.)

before inhumation. A few rather elaborately painted skulls, with red, black, yellow, and green on a single skull, have been recorded (Vignati, 1937 a).

Querandí.—The archeology of the *Querandí* subarea is concerned with those sites south and west of the Paraná and La Plata Rivers, in the historic habitat of the *Querandí* tribe. Arroyo Sarandí (Lothrop, 1932 b), a delta site near Buenos Aires, and sites in the Lake Chascomus and Lake Lobos (Outes, 1897) region of northern Buenos Aires Province are representative. Additional sites containing very similar archeological finds are those of Río de las Conchas (Oliveira Cézar, 1895), Punta Piedras (Vignati, 1931 a), Punta Lara (Bruzzone, 1931), and Río Matanzas (Basavilbaso, 1937 a). The southern limits of the *Querandí* archeological subarea are not clearly defined.

Sites.—The village sites attributed to the *Querandí* are shallow refuse mounds representing at least semipermanent living places. Arroyo Sarandí, located on the intermediate ground between the flood plain of the river and the higher ground of the Pampas, is a thin rubbish site, apparently several acres in extent. Outes (1897) describes some of the midden sites, or paraderos, in the Chascomus-

Lobos region as 45 to 165 yards (40 to 150 m.) square, and others as much larger, although these latter may not be deposits of continuous refuse. Sherds, flint artifacts, and other objects are scattered over the surface of the sites and distributed through the midden.

Ceramics.—Certain pottery is very similar to that found elsewhere in the Pampa, but some types are uniquely *Querandí*, so that the total pottery complex differs from that of the Pampa proper. The *Querandí* ware is generally the hardest and best made. The temper is sand, grit, or tiny smooth pebbles, although Punta Piedras (Vignati, 1931 a) is exceptional in that both ground-sherd and vegetal-fiber temper were reported. Thickness of vessel walls ranges from 2 mm. to 2.5 cm. There are no composite or other unusual vessel forms. Hemispherical bowls and shallow bowls with plain and recurved rims, and sometimes with small tubular spouts set just below the rim, are typical.

Most *Querandí* pottery is plain or is decorated with punctations or incisions (fig. 3). Red and white pigments are used sparingly, sometimes being applied as a slip of the entire vessel, but more often as bands forming rim borders (fig. 4, *bottom*). Sometimes red zones or bands are enclosed with incised lines (fig. 4, *top*). Lothrop (1932 b) mentions Arroyo Sarandí as the southernmost occurrence of painted pottery on the Atlantic coast, but it has since been reported farther south but still within the La Plata district (Vignati, 1931 a).

The *Querandí* painted decoration was undoubtedly an idea received from their *Guaraní* neighbors. A horizontal stratification at Punta Lara suggests that *Guaraní* influences were added to the *Querandí* complex, presumably at a later time. Bruzzone (1931) found grooved-incised and "drag-and-jab" incised pottery together on one area of the site; and found the same types associated with red-zoned and fingernail-imbricated (pl. 17, *h*) were segregated on a contiguous but separate part of the site.

The incised and punctate *Querandí* decoration is arranged in a band encircling the vessel exterior just below the rim. Incision is usually of the deep-grooved rather than the fine-line variety. Other techniques include deep rectangular or triangular punctations (pl. 16, *a*), stippled line or "drag-and-jab" incision-punctation (pl. 16, *a*, *b;* fig. 3), and semilunar punctations that do not appear to be fingernail impressions. These techniques are combined into the following designs: Borders consisting of a series of parallel grooved, straight or wavy lines; similar borders done with "drag-and-jab" lines; rectilinear or undulating zones outlined with grooved lines and filled with semilunar punctations (pl. 15, *a*, *b*, *c*, *d*); stepped, triangular, and connected diamond designs which may be filled with punctations

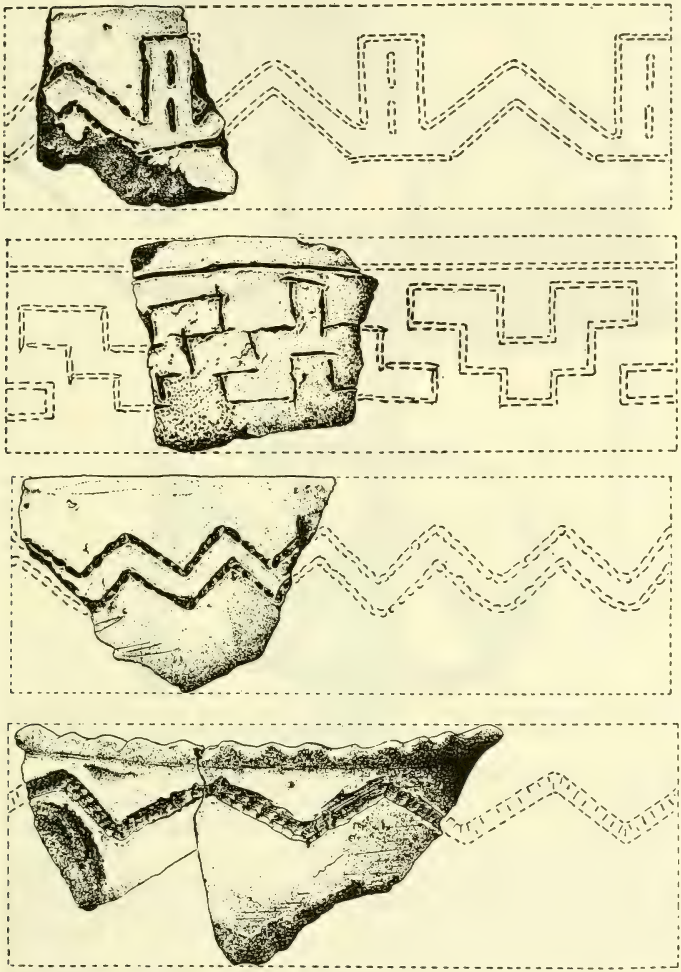

Figure 3.—*Querandí* incised sherds from Arroyo Sarandí. All are examples of "drag-and-jab" or stippled line incision (length of bottom sherd 4 in., or 10 cm.). (After Lothrop, 1932, pl. 23.)

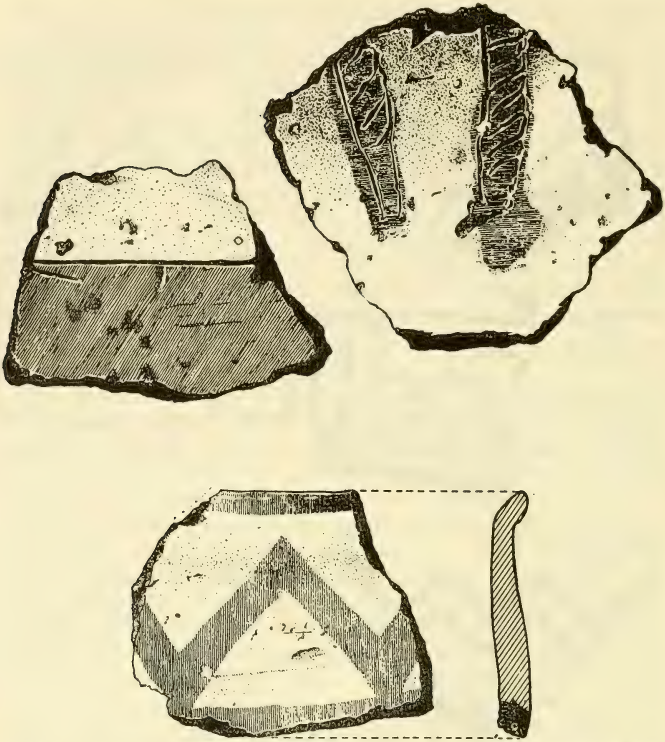

Figure 4.—Painted sherds from Arroyo Sarandí. *Top:* Sherds with incised zones filled with red. *Bottom:* Use of red bands, no incisions. (After Lothrop, 1932, figs. 56, 54.)

(pl. 15, *e*) ; and stepped and other rectilinear designs executed by rows of deep punctations. Occasionally fine-line cross-hachure is noted on vessel interiors. Both the "drag-and-jab" technique and the designs composed only of rectilinear arrangements of rows of deep punctations are *Querandí* features, or, at least, are more common in northern Buenos Aires around the Paraná River than in the southern Pampa. (See Lothrop, 1932 b, pp. 155–56, for a discussion of decoration variations and their distributions.)

Ceramic objects other than pottery from *Querandí* sites include perforated pottery disks, possibly spindle whorls (found south to Patagonia), and "tubulares," or "pot-rests" (pl. 17, *a*, *b*, *c;* fig. 5, *left*) (from delta *Querandí* and *Guaraní* sites). The latter are hollow, more or less tubular objects. Quite possibly they are also a diffused

Guaraní trait. Lothrop (1932 b) lists a single pottery pipe from Arroyo Sarandí.

Stonework.—Chipped-stone projectile points are mainly unstemmed, small, and triangular. Plano-convex round and elliptical scrapers, including the duck-bill type, are common in the Lake Chascomus region. Stone mortars and grinders are found in *Querandí* sites, and accord with the historical accounts of their use for grinding fish. Bolas, both spherical and oval, are common.

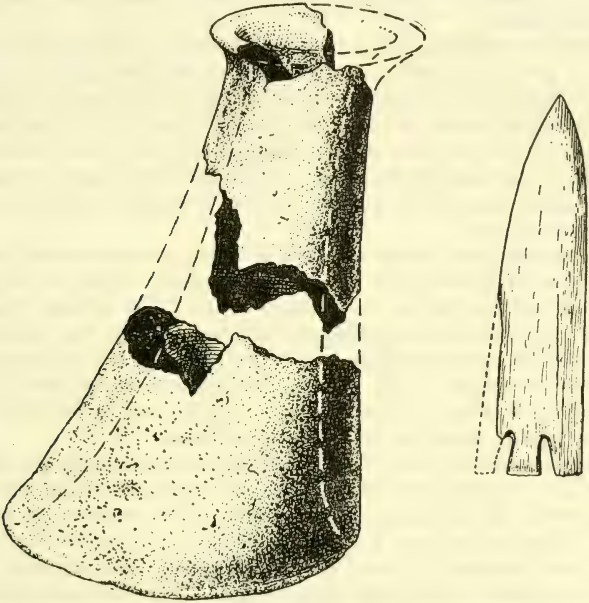

FIGURE 5.—*Querandí* artifacts from Arroyo Sarandí. *Left:* "Tubular," or pot-rest (restored height 7 in., or 18 cm.). *Right:* Bone arrow point (length 2⅜ in., or 6 cm.). (After Lothrop, 1932, figs. 62, 70.)

Miscellaneous.—Socketed bone points with a long narrow tang and a single flat barbed and stemmed bone blade (fig. 5, *right*) were recovered at Arroyo Sarandí. *Querandí* sites of the Delta abound in bone tools (pl. 18), including sharpened fish spines, pierced horn implements probably used to string fish, awls of all types, and bone pegs which appear to have been used on spear throwers. The scarcity of large, stemmed stone points in *Querandí* sites suggests that bone or wooden points must have often been used to tip the spears. Objects of personal adornment were made of shell or hammered metal.

Burials.—Burials occur in the shallow refuse at Arroyo Sarandí. They are about numerically divided, half secondary and half primary interments. Secondary burials sometimes comprise masses of bone with the remains of several individuals. The primary burials are extended. Burial offerings do not accompany the dead. Lothrop (1932 b) suggests that, as the secondary burial was the widespread aboriginal Pampean custom, primary burial may be a European innovation. European objects found in the midden at Arroyo Sarandí clearly indicate that occupation of the site extended into the post-Contact period.

Mendoza-Neuquén.—This archeological subarea diverges from the Pampa proper more than the *Querandí*, perhaps because the unique traits found in the mountains of Mendoza and Neuquén came relatively late from the Andean cultures, and therefore stand out in stark relief against the old Pampean culture pattern. *Guaraní* traits, which are the exotic elements in *Querandí*, are, on the other hand, probably much older importations that were more thoroughly integrated into the local picture.

A good many of the non-Pampean archeological elements of the region occur at Viluco, a site in northern Mendoza. There is disagreement as to the origin and relationships of the Viluco culture. Boman (1920) sees Viluco as a 16th-century *Puelche* or *Huarpe* site. Métraux (1929 a), in a later analysis, argues that it is a post-Contact site of *Araucanian* origin. L. M. Torres (1923) concurs in Métraux's view, while Canals Frau (this volume, p. 170) inclines to attribute the Viluco type archeological complex to the *Huarpe*.

Boman concluded that Viluco was an agricultural community, which practiced irrigation to sustain crops in a rather inhospitable environment. He opened a number of graves in a cemetery area at the site. These graves were 3 to 5 feet (1 to 1.5 m.), or less, in depth and each contained a flexed burial or burials. The accompanying grave artifacts were of both aboriginal and European manufacture. The latter, which include iron lances, iron nails, glass beads, and Christian religious medals, place the burials and probably the entire site as post-Conquest.

Some of the grave pottery is painted, and there are a number of unusual forms, especially a small, single-handled pitcher or jar and a single-handled kero or beaker (pl. 19, *a*, *b*, *d*, *e*). The painted pottery has a dull red or buff background with black, red, white, or red and black designs. The designs are geometric stepped figures, zigzags, nested triangles, bands or zones segmented into compartments, fields of checks, parallel straight or wavy lines, dots, and stars. Except for the painted ware, the majority of vessels, including the pitcher with single handle, and the sherds are a plain black. No simple incised or punctated pottery of a Pampean type was found at Viluco, although a few basketry-impressed sherds, resembling those from Córdoba, were obtained.

There is agreement that the Viluco pottery is generically Andean, but its more exact relationships have not been determined. In the writer's opinion, there is little specific similarity to the classic Andean Tiahuanaco-Epigonal and Nazca styles. The *Diaguita* style of Northwest Argentina has only a slightly greater resemblance to Viluco. Comparisons to what is probably *Araucanian* pottery, across the Andes, are more rewarding (pl. 19, *c*). The single-handled pitcher or jar is a characteristic *Araucanian* form (Latcham, 1928), and *Araucanian* pottery utilizes dark-red designs on a neutral buff ground and has similar designs.

Additional features in the Viluco graves which relate that site to Chilean *Araucanian* are pottery whistles (fig. 6), pyramidal dice,

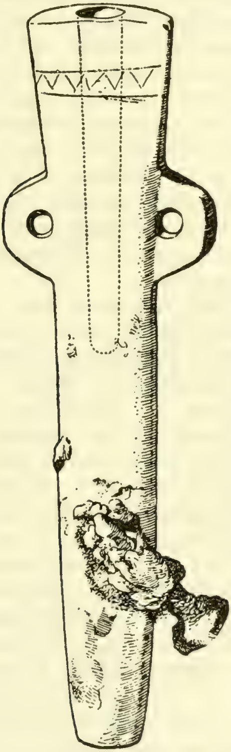

FIGURE 6.—Silbato, or whistle of pottery. Cemetery of Viluco, Mendoza. Rusted iron nail adhering to whistle (½ natural size). (After Boman, 1920, fig. 9.)

and brass ear ornaments. Métraux (1929) considers the pictographs of the immediate region of Viluco to be *Araucanian*, although he regards the pictographs in extreme northern Mendoza as *Diaguita.*

The projectile points found at Viluco (Torres, L. M., 1923; Boman, 1920) are all of the small, unstemmed variety, very similar to those of the Pampa proper.[6] Other sites in Mendoza yield microlithic points, quite different from any in the Pampa region. Other Pampa traits at Viluco are spherical and pyriform bolas, a bone lip plug, and shell necklaces and perforated shell disks. These last are, interestingly, made of Pacific as well as Atlantic shells. Square-bodied copper punches and wooden beads found in some of the graves may or may not be of aboriginal origin.

Whether or not Viluco was an *Araucanian* or *Huarpe* site is, of course, not conclusively proved by its archeology. A very strong case can be made to demonstrate that its material remains are closely related to Chilean *Araucanian.* It is, of course, possible that the *Araucanian* features, including agriculture, were borrowed and rapidly assimilated by a simple, nonhorticultural people, such as the *Huarpe.* Such an assumption supposes a very quick and complete change in the underlying mode of life of a peripheral Pampa people. Archeological evidence indicates a relatively brief and late period to be involved. Presumably, Pampean peoples had been living in close proximity to Andean agriculturists for several hundred years previous to the European Conquest without basically changing the Pampean mode of life. It seems doubtful that such a swift acculturation of non-European elements took place after the Conquest.

Although the Viluco site is representative of many of the distinctive features of the Mendoza-Neuquén subarea, other non-Pampean finds have been made in the mountain valleys of the two provinces. The subterranean granaries, lined with tied sticks and clay-capped, and the above-ground rock structures of the Uspallata Valley are clearly non-Pampean features (Rusconi, 1940 b).[7] Basketry, to judge from basketry-impressed sherds, must have been a prehistoric as well as an historic and modern native industry. There are deep, man-made holes in large stationary rocks, presumably mortars for grinding food (Rusconi, 1940 c). Stone lip plugs both of the flat Pampean variety and of an elongated spike form (Rusconi, 1940 d) obtain in Mendoza. More unusual artifacts are the Fuentes de Ofrendas, or offertory basins, made of steatite or pottery. These are somewhat like the snuff tablets from Northwest Argentina, although the former are ovoid rather than quadrangular. A typical specimen shown by Rusconi (1941 a) is 8.7 inches (220 mm.) in length, 4.8 inches (123 mm.) in width, and 1 inch (25 mm.) deep, and has a projection at one end which seems to be a crude animal effigy head (pl. 20, *bottom*). The sides and bottom bear designs resembling those on the stone plaques and axes of Neuquén, Río Negro, and Patagonia. An interesting monitor-type pipe (Rusconi, 1941 b) from the Department of San Rafael is also made of steatite, in the form of an animal. The tobacco bowl is in the animal's stomach and the self-stem is the tail. The pipe is believed to have been a trade piece from the northwest.

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[6] Larger stemmed points are found at other sites in Mendoza, as at Cochico (Outes, 1906 a).

[7] The pottery from these rock structures, or Tambillos, is, in the judgment of the writer, quite similar to the Viluco style. (See Rusconi, 1940 b.)

In Neuquén, to the south, the chipped-stone artifacts (fig. 7) are much like those of Mendoza except that the large stemmed projectile points are found in addition to the small stemless points. Some of the latter are carefully and delicately chipped of obsidian. Ground-stone weapons and grinding tools are like those of the Pampa proper, but, in addition, there are curious maul-shaped objects called sobadors (Aparicio, 1935). These are approximately 6 inches (15 cm.) long with a cylindrical body and a round, flattened head. Made of porous rock, they are said to have been used for the pounding and depilation of skins (pl. 21, *c*).

Neuquén pottery is apparently simpler than that of Viluco. Sherds from the Lake Lacar site, while mostly plain except for a few incised fragments, differ from Pampa pottery in having handles. The plain red and plain pottery vessels uncovered near Covunco Centro are identical in form to the little single-handled jars from Viluco. This Covunco Centro ware is said to be modern (or relatively late) *Araucanian* (Aparicio, 1935).

Stone celts (pl. 21, *b*, *d*) and axes of distinctive forms have been found in Neuquén. The latter have an abrupt central constriction while others are more like an inverted "T" in outline. They are usually flat and thin in cross section, well polished, and may be engraved. They are sometimes called "pillan toki," or votive axes (Ambrosetti, 1902; Vignati, 1931 b). They have been found in Mendoza, La Pampa, Río Negro (pl. 20, *top*), and Patagonia. The engraved designs on some of the axes are similar to those on the engraved plaques of Río Negro (fig. 8) and Patagonia. Some authorities consider the axes to be *Araucanian*.

San Luis-Córdoba lowlands.—There are fewer data available on this subarea than the others. It is possible that the lowland country between the mountains of Córdoba and San Luis and the Paraná River was very sparsely occupied in prehistoric and early historic times. The little material from this country appears to be related to the Córdoban highland and the Pampean and *Querandí* cultures.

Pottery.—Pottery from Villa María, in the lowlands of central Córdoba, is described as mostly a plain ware with quartzite and mica

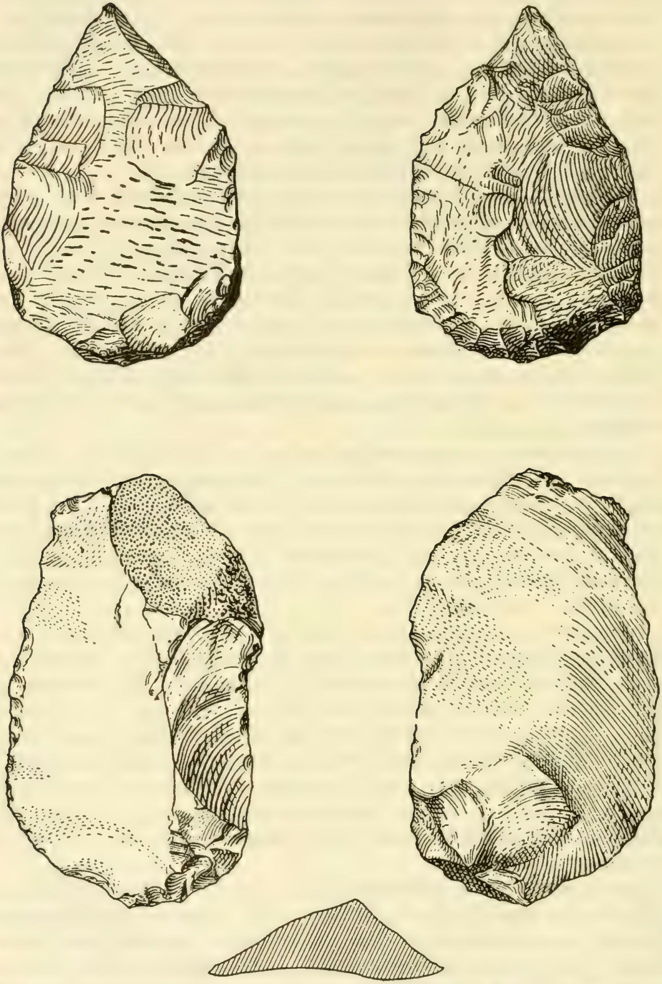

FIGURE 7.—Chipped-stone artifacts from Neuquén. *Top:* Pointed scraper. *Bottom:* Plano-convex knife with fine retouch. (Both natural size.) (After Aparicio, 1935, figs. 3, 5.)

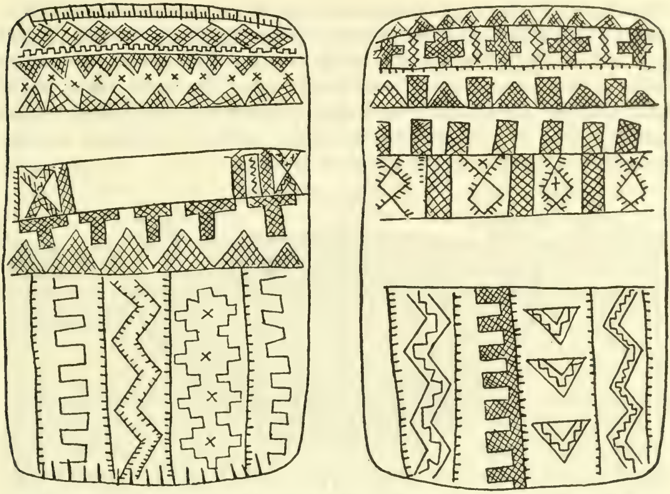

FIGURE 8.—Engraved stone plaque from Río Negro. Obverse and reverse. (After Greslebin, 1928 b, pl. 2.)

temper, poorly fired but well smoothed (Outes, 1911). The decorated sherds are grooved-incised (pl. 22, *h*, *i*). Pottery from the region of Mar Chiquita in the lowlands of northern Córdoba resembles the Paraná littoral in its "drag-and-jab" technique of decoration (pl. 22, *a*, *b*). Some sherds from Mar Chiquita are decorated with incised zones filled with punctations (pl. 22, *c*, *d*, *f*), a combination suggesting the south, although the small pottery sample makes this a very tentative judgment. More abundant at Mar Chiquita is a net-impressed pottery (pl. 22, *e*, *g*), which is probably Andean derived (Aparicio, 1942).[8] One sherd with a handle was included in a recent collection.

Burial.—A single primary inhumation of a flexed, articulated, but decapitated, burial was excavated at a site near Mar Chiquita. The primary flexed inhumation is the Andean rather than the Pampean mode of disposal of the dead (Frenguelli and Aparicio, 1932).

"*Hornos.*"—Various Argentine archeologists (Greslebin, 1928 a; Rusconi, 1940 c; Frenguelli, 1941) have commented upon the curious olla-shaped earth ovens or storage pits which are an outstanding feature of the San Luis-Córdoba region and are also found in Santa Fé and Mendoza. These "hornos," or "botijas," range in width from 1½ to 3 feet (0.5 to 1 m.), and in depth from 1¼ to 1¾ feet (40 to 60 cm.).

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[8] Some of these sherds may possibly be cord-wrapped paddle stamped rather than net-impressed.

When intact they are apparently globular, being narrower at the mouth than at the midpoint. The "hornos" lie entirely beneath the present ground level except for the rim of the mouth. This rim and the upper walls of the "horno" are of well-fired clay. The lower third of the walls and the base is unfired and usually filled with carbonized vegetal material (fig. 9). There are variations in form, although in some cases these appear to be the result of erosion.

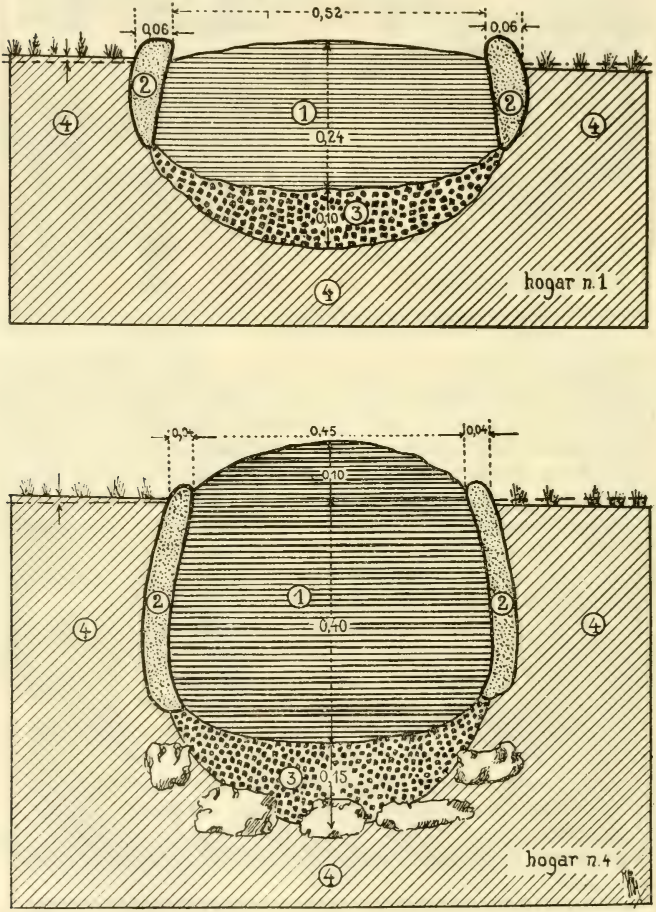

FIGURE 9.—Cross section of two "hornos," or "botijas." From Los Baldes, San Luis. 1, Vegetal ash; 2, burned earth from direct action of fire; 3, heterogenous carbonized vegetal matter; 4, sandy soil. (After Greslebin, 1928 a, fig. 7.)

The immediate surroundings and orientation of the "hornos" have been of little help in determining their function. Usually they are clustered, without any apparent purposeful arrangement or spacing. Whether they were situated inside dwellings, or even within camp areas, is not known. Sometimes, sherds and flint scrap found nearby indicate a village; at other times, the pits are remote from any evidence of human habitation. The "hornos" have been considered as ovens for firing pottery, ovens for cooking food, storage pits for preserving fires, repositories for cremated remains of the dead, and reservoirs.[9] The last two purposes seem ruled out by the nature of the "hornos" and by their contents or lack of contents. Unless new data of a revealing sort are added to present knowledge, speculation upon their function appears futile.

CONCLUSIONS AND PROBLEMS

The conclusions to a summary of Pampa archeology lead into questions from almost every point of departure. We know that, stripped of *Guaraní* or other presumably Tropical Forest traits and elements derived from the Highland cultures of the northwest or the *Araucanian* to the west, there is left a certain cultural residue in the Pampa. It has been referred to here as the "basic culture" of the Greater Pampa. Within this residue we observe that the trait of pottery making and decorating was most developed in the north near the La Plata and Paraná Rivers, and that there was a diminution of the pottery trait to the south. This fact, combined with the absence of pottery from all prehistoric periods at the extreme south of the continent, is a reasonable argument for supposing that pottery making diffused from north to south. Does then, the fine-line incised pottery from the southern Pampa represent an earlier pottery period than the incised *Querandí* wares in northern Buenos Aires Province? If so, a similar style might be found stratigraphically beneath *Querandí* pottery in the north.

In like manner, do the stemmed points and engraved stone plaques of the south belong to such a pre-*Querandí* horizon in the north? Or is the medium-sized, stemmed projectile point derived from the south? Bird's data (1938) suggest the latter. We know almost nothing concerning the age of bolas in the Pampa except that they are prehistoric. In Patagonia they are considered a very late, post-Contact importation from the Pampa. Yet Bird (1938) has stratigraphic evidence at the Strait of Magellan to show that bolas have a respectable antiquity. Are they older there than in the Pampa? Were they developed in the far south? These are only a few of the questions that cannot be answered without further evidence.

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[9] It has also been suggested that they are natural formations.

It appears that the immediate tasks in Pampa archeology are: first, to determine a sequence within the Pampa; second (or concurrently), to establish a chronology for the richer archeological regions of the northwest and northeast; and third, to prove relationship or lack of relationship between these two sequences and to compare the results with the sequence at the Strait of Magellan. Did a cultural complex that is technologically equated with and typologically similar to that of the Pampa underlie such cultures as the *Diaguita* or *Santiagueña* in the northwest and survive in the Pampa? Or, on the other hand, if Pampa cultures are not marginal survivals of an old culture layer, are they the product of a people who were forced out of the Andean or Tropical Forest orbit of living, and who adjusted to an inhospitable environment? The answers to these questions, more fundamental to New World prehistory than the Pampean-Patagonian relationships discussed above, await the interrelation of cultural stratigraphic sequences. Such stratigraphy need not necessarily involve a great time span or be cross-referenced to major geologic phenomena. In all likelihood it can best be calibrated by the small stylistic changes and frequency-count variations of the stratified materials within individual archeological sites.

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THE CHONO

By John M. Cooper

NATURAL ENVIRONMENT

The circa 300-mile strip of the southern Chilean archipelago, from about 43°30′ to 48° S. lat., which constituted the habitat of the *Chono*, is a region of hilly islands, deep fiords, and tortuous channels, in which travel was of necessity mostly by water (map 1, *No. 1C;* map 2). The *Chono* were, like the *Alacaluf* and *Yahgan*, a distinctly canoe people. The climate is marked by a predominance of damp, cloudy days, by very high rainfall in all seasons, well over the 80-inch (200 cm.) per year mean, by strong to violent prevalent westerly winds, and by temperatures cool without being severe. The islands and mainland coast are mostly covered with dense, extremely wet, temperate rain forest.

TERRITORY

The northern limit of *Chono* territory—the dividing line between the southernmost *Araucanians* of southern Chiloé and the northernmost *Chono* of the Guaitecas Islands region—was Corcovado Gulf, as is clear from our 16th-, 17th-, and early 18th-century first-hand sources, Goicueta, Ferrufino, Venegas, Pietas, and Olivares. That the early *Chono* lived or wandered as far south as the Taitao Peninsula is reasonably clear from García. They probably extended a little farther south, to the Gulf of Peñas and the Guaianeco Islands, at least in the middle or later 18th century, but the point is open to some question, as the *Chono* ethnic identity with or relation to the "*Huilli*," "*Caucahue*," and "*Guaiguen*" of this region just south of Taitao Peninsula is none too clear. (Cf. below, Names and Divisions and Language, and detailed review and discussion of evidence in Cooper, 1917, pp. 32–41.)

The *Chono* were in contact from very early times with the *Araucanians* of Chiloé. They raided the Chilotans to secure iron and other plunder; the Chilotans raided the *Chono* and took women and children as captives. The *Chono* of the Guaitecas Islands used to capture "*Huillis*" farther south, to keep them in a sort of drudgery servitude, and to sell them to the Chilotans.

NAMES AND DIVISIONS

The name *Chono* (etymology unknown), probably the name which the people called themselves, was first recorded in Ferrufino's letter of 1610. Other tribal denominations used by early Spanish writers for natives living in the region between Chiloé and the Guaianeco Islands are: *Huilli* (*Huille;* from *Araucanian* willi, "south"), *Caucahue* (*Caucau; Araucanian* kaukau, "gull"), and *Guaiguen* (*Araucanian* waiwen, "south" [wind]). Some at least of these "*Huilli*," "*Caucau*," and "*Guaiguen*" were probably *Chono.* In the said region there may possibly have been more distinct tribes than one, or two or more well-constituted subdivisions of one tribe, but we have no clear evidence thereof (Cooper, 1917, pp. 30–34).

HISTORY OF INVESTIGATION

Contact was first made by Whites with the *Chono* on the Ulloa expedition in 1553. Our first description of them was given by Goicueta, the chronicler of the Cortés Hojea expedition of 1557–58. A half-century later, some further data on *Chono* anthropology were gotten with the advent of the Jesuit missionaries, Fathers Estevan, Ferrufino, and Venegas, to Chiloé and the Guaitecas Islands in 1609–13—data recorded in the Cartas Anuas (1927), and cited or drawn upon in the writings of Fathers del Techo, Rosales, Olivares, and Lozano. Around the middle of the 18th century, some further light was shed on *Chono* anthropology by Byron, Campbell, Bulkeley and Cummins, and the anonymous author of the Affecting Narrative, who were members of the crew of the *Wager*, which was shipwrecked on the Guaitecas Islands in May 1741; and by Father García in his account of his missionary expedition of 1766–67 to the Guaianeco Islands. Since then additions to our knowledge of *Chono* culture have been negligible. Nearly all our exceedingly scant information, from the sources, on the history, territory, culture, and language of the *Chono*, has been summarized and discussed in Cooper (1917, passim.).

LANGUAGE

Not a single word of the *Chonoan* language has come down to us, except, perhaps, the word *Chono* itself, three names of unidentified birds (colman [=cormorant?, to judge from context], optem, piupigue: García, J., 1889, pp. 5, 13, 24), and a few tribal, personal, and geographical names. The three words listed by Fitz-Roy (1839, Appendix, p. 142) as *Chonoan* were more likely *Alacalufan.* Ferrufino's (1927, p. 111) and Estevan's (Torres, D., 1927 b, p. 380) manuscripts in and on the *Chonoan* language have been lost, perhaps irretrevably. From our historical sources on the *Chono*, however, certain general conclusions regarding their language can be formulated.

That the *Chono* spoke a tongue distinct from the *Araucanian* of southern Chile and of Chiloé is abundantly testified, and there is no ground for assuming that *Chono* may have been a highly divergent dialect or language of the *Araucanian* family. That they spoke a *Tehuelchean-Onan* (*Chon*) dialect is extremely unlikely. That their language was distinct from that of the *Alacaluf* or of the archipelagic canoe-using natives immediately south of them, beyond about 48° S. lat., is slightly more probable than not, but such difference, if it existed, may have been merely dialectic. In any case, we have no even near-solid scientific ground for classifying *Chono* as a distinct isolated linguistic family. (Cf. Cooper, 1917, pp. 34–41, for discussion of evidence.)

POPULATION

Our various first-hand accounts of *Chono* territory indicate that it was thinly populated, but exact data on the total population are not available. We have only a few figures, from missionary records. The Jesuit missionaries baptized 220 *Chono* of the Guaitecas Islands region and estimated that there were not more than 50 other *Chono* at the time, 1612–13, in the region (Venegas, 1927, p. 382). A century later, in 1710, hard pressed by raids both of the Chilotans and of more southern Indians, 30 *Chono* families, and, shortly after, 200 families or more than 500 souls, were settled under the Jesuit missionaries on Huar and two other islands in the Gulf of Reloncavi. They or some of them were still there in 1736, but in 1795 Moraleda found no Indians on Huar.

In 1745 some Guaineco Islands Indians were brought back and established on Chonchi Island under mission auspices. In 1765 the Island of Cailin, just off the southeastern coast of Chiloé, was set aside as a mission for the *Chono*, and thither came many *Caucahue* and later *Calen*. In 1779, 11 *Guaineco* were persuaded by Fathers Marin and Real to return with them to Chiloé. In 1780, 30 or 32 came to Lemui Island, off the central eastern Chiloé coast, but left about a year afterward. In 1780–81 the *Chono* established on Cailin moved to Chaulinec Island, east of Lemui. In 1788 Moraleda reported 21 or 22 families of *Chono* on Apiao Island, east of Chaulinec. In 1790 the surviving 22 *Chono* on Chaulinec returned to Cailin.

After this date the *Chono's* trail is lost almost completely until 1875, when Captain E. Simpson came across a sole family of "*Chono*" in Puquitin Channel between Ascension Island and the Guaitecas Islands. We have no later reports of surviving *Chono*. All later observers since 1875 have declared that the islands north of Taitao Peninsula were uninhabited except by a few Whites or Chilotan Indians. The *Chono* appear to have become completely extinct, unless they were from the beginning, as is not improbable, only a branch of the *Alacaluf*, and later merged with their *Alacaluf* fellows south of the Taitao Peninsula (Cooper, 1917, p. 46–47).

CULTURE

Our knowledge of *Chono* culture is exceedingly meager. No single survey covers even material culture in any detail, while social and religious culture is an almost complete blank. Our most important first-hand sources, such as they are, are Goicueta ([1557–58] 1879), Ferrufino (1927), Venegas (1927), Campbell (1747), Byron (1768), and García, J. ([1766–67] 1889). The data given in Del Techo (1673), Rosales (1877–78), Olivares (1874), and Lozano (1754–55) are largely derived from Ferrufino and Venegas. In the following pages the data on the canoe-using Indians from J. García and Byron are cited as *Chonoan*. Inasmuch, however, as their "*Caucahue*" and "*Chono*" respectively cannot be shown beyond all doubt to have been true *Chono*, the citations are made with some reserve.

In most respects, *Chono* culture, so far as known, was identical with or similar to that of the *Alacaluf*. Certain elements of *Araucanian* culture had spread down the coast as far at least as the Guaitecas Islands. Such were: sporadic gardening and herding, the polished stone ax, and the plank boat. Such diffusion is readily understandable in view of the known raiding and trading contacts of the Guaitecas islanders with the Chilotans (Cooper, 1917, pp. 43–45).

There is no evidence of *Tehuelche* influence upon *Chono* culture, although the *Chono* may possibly have been in sporadic contact with the *Tehuelche* along the mainland coast. The "gigantic" *Caucahue* described by some sources, as distinct perhaps from the smaller-statured *Caucahue* described by others, who were observed at various times in or near *Chono* territory, may possibly have been of *Tehuelche* stock, but the point is very far from clear.

SUBSISTENCE ACTIVITIES

Fish, shellfish, and seals constituted the basic diet. Birds, eggs, and stranded whales were also eaten. Water and seal oil were the customary beverages.

No systematic agriculture was carried on, but there is some evidence of sporadic cultivation, even in pre-Contact times, of the potato in the Guaitecas Islands region (Goicueta, 1879, p. 513), and, in the post-Contact period, of maize and barley.

Before the coming of the Whites, the only domesticated animal was the dog. Some of the *Chono* north of Taitao Peninsula bred small, long-haired, shaggy-maned dogs, and from their hair made short mantles. In later times, the *Chono* kept a few sheep and goats.

Cormorants were taken at night with torches and clubs. In seal hunting a "lazo" (not a lasso) and a long heavy club were used by the *Caucahue* (García, J., 1889, p. 6). "Canquen" (*Chloëphaga*, a goose), when molting and unable to fly, were rounded up and driven to land by throwing pebbles at them from canoes, and were then slaughtered with clubs (García, J., 1889, p. 37). For other hunting weapons, see page 52.

The women were accustomed to dive for shellfish. According to Goicueta (1879, p. 518), the *Chono* used a wooden fishhook, but there is some doubt about this. Fish nets were made of bark fiber; seal nets, of rawhide. The dogs were trained to help in the fishing.

Hot stones were employed for boiling fish in bark buckets. Seal meat was sometimes eaten raw, a piece being put in the mouth and cut off close to the lips with a shell (García, J., 1889, p. 23).

HOUSES

Huts were of sticks covered with boughs, bark, or skin. Those observed by Byron (1768, p. 123) were of beehive or domed construction, the framework consisting of branches stuck in the ground in a circle and bent over at the top, where they were bound with a kind of woodbine, split by holding in the teeth. Those described by Venegas (1927, p. 381) were, inside, barely the length of a man's body and so low that one had to kneel in order to keep from touching the top. In some cases, only the bark or skin cover was carried around in the canoe from camp to camp; in other cases, the pole framework as well. The hearth was in the center of the hut.

DRESS AND ORNAMENTS

Clothing, including short mantles covering the shoulders only and longer ones reaching to a little below the waist, was of skin, woven dog's hair, bark, and woven down or feathers. A pubic covering, made of large, hard leaves (kelp?) cast up by the sea, was also used (Ferrufino, 1927, p. 111). No head or hand covering or footwear is reported.

Red, white, and black face and body painting was in use. The tonsure was sometimes worn. Scarification was practiced; but no tattooing is recorded, nor is any form of bodily mutilation, or of finger, ear, or nose ornament. Necklaces of shell and bone, and feather diadems were in vogue. García, J. (1889, p. 28) observed one man around the north end of Fallos Channel with two bird wings on his head.

TRANSPORTATION

Travel was almost entirely by water. No rafts, balsas, skin boats, or dugouts are reported. As early as first European contact, in

1553, the plank boat, similar to the one used by the *Araucanians* of Corcovado Gulf, was employed by the *Chono* between Corcovado Gulf and Cape Tres Montes. It was originally of three planks, caulked with bark, and made, without axes or adzes, with use of fire, flints, and shells. Usually it leaked a good deal and required much bailing. There was a portage route from the Chonos Archipelago across the Isthmus of Ofqui to the Gulf of Peñas; the plank boat was taken apart for portaging and put together again at the end of the portage. In later times, from about 1767, a sail was sometimes used.

In the middle 16th century, south of the Gulf of Peñas, only bark canoes were used; these were made of thick slabs of bark, and were of crescent shape. In the course of time, the plank boat largely replaced the bark canoe, gradually spreading down the coast from the Gulf of Peñas and being first reported in the Strait of Magellan, near the western end, in 1765 (Cooper, 1917, pp. 195–204 passim.).

MANUFACTURES

Pottery was absent. The *Chono* "wove" mantles or blankets of dog's hair, of bark fiber (presumably woven), and of bird down, but no details on technique are available. Nor have we any information on basket making, skin dressing, or stoneworking. Buckets were made of bark. The flint axes and adzes attributed to the *Chono* by Pietas (1846, p. 503) were not unlikely of Chilotan origin, as were the stone axes that have been occasionally found in *Chono* territory (Cooper, 1917, pp. 44–45, 217). Some kind of stone and shell tool was used in making plank boats.

Weapons.—The usual hunting weapons were the spear and club, the former with a head of bone, probably single-barbed. Byron states (1768, p. 129)that the natives, most likely *Chono*, but not certainly so, with whom he was in contact used "bows and arrows sometimes, but always the lance"; all other first-hand observers are silent, and no arrowheads appear to have been found archeologically in *Chono* territory. Neither slings nor spear throwers are reported.

Fire.—Torches were made of bark. There is no information on fire-making methods.

SOCIOPOLITICAL CULTURE

On the nonmaterial aspects of *Chono* culture we have only the few scattered fragments of information that follow.

Marriage.—García, J. (1889, p. 42) reported his *Chono* as monogamous. The "*Chono*" cacique who guided Byron from Wager Island to Chiloé apparently had two wives, an older and a much younger one, perhaps a mother and her daughter by a previous marriage; it is very doubtful, however, whether he was a real *Chono* or was representative of *Chono* culture (Cooper, 1917, p. 76, 165–66).

Political life.—The *Chono* had some kind of headmen or chiefs, but what authority they had, if any, is uncertain. Delco, the "cacique principal" of the Guaitecas Islands, was at the same time an appointee of the Spanish authorities of Chiloé (Ferrufino, 1927, p. 110).

The *Chono* raiding expeditions among their neighbors to the south and north have been previously noted (see Territory). *Chono* weapons were spears, clubs, and stones. There is no report of shields or armor, and cannibalism is not recorded.

Economic life.—The *Chono* were in trading relations with the Chilotans. Besides serving as middlemen in taking captives among their southern neighbors and selling them to the Chilotans as "slaves," the *Chono* themselves kept some of these captives in a kind of drudgery slavery.

Gathering fuel, diving for sea urchins, and searching among the rocks for shellfish were tasks of the women; cutting poles for the hut, sealing, and apparently cormorant hunting, tasks of the men.

LIFE CYCLE

In one case reported, a father cut his hair to celebrate the birth of a child.

Burial in caves was common. One instance of platform burial is recorded. Burial in embryonic posture or with knees flexed to shoulders occurred.

ESTHETIC AND RECREATIONAL ACTIVITIES

There is no mention of musical instruments in our sources. On dancing (cf. infra) and singing there is almost no detail. García, J. (1889, p. 29) was welcomed by the men and women dancing and singing most of the night; the singing reminded him of a lullaby crooned to put an infant to sleep. There was apparently no native *Chono* intoxicant. (Cf. Cooper, 1917, p. 44.)

RELIGION

We have only a few scattered data on certain rites and observances. Byron (1768, pp. 145–146) and Campbell (1747, pp. 61–62) give short descriptions of a rite, apparently religious, performed by men and women. Vocalizations began by deep groans and gradually rose to "a hideous kind of singing." The participants, in frenzy, snatched firebrands from the fire, put them in their mouths, and ran about burning everyone they came near; at other times they would cut one another with mussel shells until smeared with blood. And so the ceremony went on until exhaustion ensued. When the men stopped, the women began. Byron's Christian cacique kept aloof, and stated that "the devil" was the chief actor among the *Chono* on these occasions.

A person could harm another if he possessed a bit of the latter's hair. García, J. (1889, p. 29) reported a case (probably but not certainly *Chono*, as in much of the information from García) of death from black magic wrought by obtaining hair from the top of the victim's head. García was told that only hair from the top of the head would serve; that all the natives of the vicinity cut the hair from the crown of the head for fear of sorcery; that the possessor of such hair, if he wished to harm the person from whom it was stolen in sleep, would place it between two stones, dance around it all night invoking the "demon," and from time to time pound, strike, and pierce it; that, if he wished to cause the victim's death forthwith, he would take it to sea and tie it to some kelp, or would go to the mountains and throw it down trees. The purloined bit of hair was kept tied with whalebone.

García's *Caucahue* (probably *Chono*) blacked their faces with charcoal on entering a lagoon in which icebergs were floating and on the banks of which snow lay, "to salute the snow, lest they die," and on another occasion one of them painted his face to bring good weather. The *Caucahue* with García were much incensed at a Spaniard who threw his poncho in the sea water to wash it; the Moon, they said, would be angry and send them bad weather (García, J., 1889, p. 14).

It was taboo to look at a flock of parrots passing overhead, lest bad weather follow; to throw kelp or shellfish on the fire, lest the sea become rough; to throw shells in the water, Byron being severely rebuked for throwing limpet shells from the canoe into the water.

In curing her husband who was suffering from some malady of the back, a woman massaged his back and chest, spurted water on him from her mouth, cried, wept, and moaned, and applied her mouth to his back. Then another woman came and anointed him and smeared him with "colo" on the arms, chest, and back. He himself dived into the water many times daily. The rite was a magical one, García was told (García, J., 1889, p. 37).

On mythology, lore and learning, and etiquette, no information is available.

THE ALACALUF

By Junius Bird

HABITAT AND HISTORY

The *Alacaluf* (*Halakwulup*, *Alakaluf*, *Alacalouf*, *Alaculuf*, *Alaculoof*, *Alucäluf*, *Alukoelúf*, *Alooculoof*, *Álookooloop*, *Álukulup*, *Álokolup*, *Alikhoolip*, *Alikuluf*, *Alikaluf*, *Alikoolif*,[1]) have, from early times, inhabited the archipelago along the Chilean coast from the Gulf of Peñas (lat. 47°30′ S.) to the islands west of Tierra del Fuego (map 1, *No. 1B;* see also map 2).

Habitat.—This is a wild, rugged region, isolated by a natural barrier of mountain crests and massive ice fields along its eastern margin, and a difficult water passage at its northern limit. There is heavy rainfall—in places, more than 120 inches annually—distributed rather uniformly throughout the year and generally accompanied by strong westerly winds. Low dense clouds and an extremely small total of hours of sunshine are depressing. Temperatures are moderate, subzero (Fahrenheit) records being rare extremes in the far south. The mean annual temperature is close to the 43° F. reported for Fuegia (records taken in the Strait of Magellan and south) with remarkably slight daily or seasonal fluctuations. Snowfall at sea level is light and of short duration; the summer snow line lies between 1,500 and 2,000 feet (450 and 600 m.) elevation.

Most of the region has a dense vegetation which, together with the physical structure, makes travel by land impossible or difficult (pls. 23, 24). The *Alacaluf* are consequently an essentially canoe- or boat-using people. Accustomed to this environment, they have never shown any inclination to leave it.

History.—Along the one route from *Alacaluf* territory to other coastal areas, namely, the Strait of Magellan, archeological and historical evidence does not reveal the presence of the *Alacaluf* in the grassland area beyond Elizabeth Island, abreast of the eastern limit of the forest growth. Archeological remains of the first inhabitants along southern Tierra del Fuego and the islands to the south are so closely related to the *Alacaluf* culture that it seems safe to assume that the *Alacaluf* preceded the *Yahgan* in that district. When considering historical records, it is well to remember that there is reason to question the identity of some of the canoe-using natives encountered where the *Yahgan* and *Alacaluf* territories overlapped, as the *Yahgan* also ranged as far as Elizabeth Island in not very distant times (Bird, 1938, p. 260).

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[1] See Cooper, 1917, pp. 5–6. *Alacaluf* may have been derived from the *Yahgan* Innalum Aala Kaluf, "western men with mussel-shell knives."

European contacts.—The records of various European contacts with this tribe have been admirably compiled and analyzed by Dr. John M. Cooper (1917). In the 16th century, major references show eight published records of contact with canoe-using Indians in the Strait and one in the channels to the north; in the 17th century, six in the Strait and one to the north; in the 18th century, eight in the Strait and two to the north; and in the 19th century, eight in the Strait and four to the north. Excepting the early voyages, these accounts probably concern only a minor portion of the actual contacts between Whites and natives. As no comprehensive first-hand ethnographic study of the *Alacaluf* has ever been published, the importance of the accumulated data in historical sources is apparent. The information is, on the whole, extremely sketchy and of varying reliability, but it permits comparison of the Indians' former and present status and a fairly accurate summary of the changes that occurred through the years.

At the present, probably 160 to 200 *Alacaluf* survive. They are rather evenly divided into two scattered groups,[2] one occupying the inner channels between the Gulfs of Peñas and Trinidad; the other concentrated just north of the western entrance to the Strait of Magellan. The southern group has borne the brunt of White contact and suffered accordingly, both culturally and physically, while the northerners continue to live much as their ancestors did many centuries ago. Early records reveal a friendliness which soon gave way to distrust of the "cristianos," a feeling which endures today.

The introduction of steam navigation marked the first real utilization of *Alacaluf* territory by Whites. Prior to the discovery of the passage south around Cape Horn, the Strait of Magellan held temporary importance; a settlement for defensive purposes was established in 1584. This failed, and, though many exploring expeditions and some sealing and hunting parties entered the region, no further settlement was made until 1843. Only when the use of steamers justified the establishment of a lighthouse service along the Strait did the southern group come into fairly regular contact with Whites, which was strengthened with the building of a coaling station in Muñoz Gamero Bay shortly after 1900. In 1888, the Salesians started a mission for the *Alacaluf* and *Ona* on Dawson Island, which was not very successful as it conflicted with their normal nomadic existence. Moreover, when brought together, the Indians were rapidly decimated by contagious diseases.

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[2] Estimate based on personal observations checked with José Remulo, a Chilean married to an *Alacaluf* woman and actively engaged in trading with her people during the past 18 years. Gusinde subdivides the southerners into two groups, but has not yet published his reasons for this distinction.

Finally, a steamer route from the Strait northward through the channels to the Gulf of Peñas gave the northern group their first regular contacts, but, until the lighthouse was established on San Pedro Island in 1932 and the Punta Arenas air-route station erected on Wellington Island in 1936, no Whites settled in that area.

The annual visits of small parties of men from Chiloé Island to hunt coypus and otter afforded the northern group important contacts that are not mentioned in the literature. In 1934, 14 boatloads passed San Pedro; in 1935, eight. It is not known when this custom started; probably it was during the present century. The Indians feel considerable animosity toward these people.

Though the White contacts with the southern *Alacaluf* date back to the early voyages of exploration, the Indians were little influenced until the last half of the 19th century, and the northern group remained much more isolated because of the slight economic worth of the region. It is unsuited for agriculture or stock raising; it has no important mineral deposits; and the demand for timber has not yet warranted the exploitation of the forest resources. A new industry just beginning is the gathering of deep-water shellfish by men equipped with diving outfits. In the past, these divers operated in the Chono Archipelago, but with the depletion of reserves there, have started work south of the Gulf of Peñas, one party being reported at English Narrows in 1942.

Population.—The lack of *Alacaluf* population figures is understandable. There are no important estimates prior to 1900; after this date, the more reliable estimates vary from about 200 to 400 (Cooper, 1917, p. 47). At present, men familiar with these natives believe that they are not decreasing. Archeology shows that the greatest concentration of midden refuse in *Alacaluf* territory is along the inner channels between the Gulfs of Peñas and Trinidad. South of Trinidad and along the Strait and down into Barbara Channel, camps are scattered and have only shallow middens. Nowhere, either north or south, is there any concentration of refuse comparable to that seen in the *Yahgan* territory. Even with complete data on the amount and distribution of the evidence of occupation, it would be presumptuous to give any figure for the former *Alacaluf* population as it might have been in Magellan's time, but it is doubtful if they ever exceeded a few thousand.

SOURCES

The following information on material culture is based on the writer's observations of about 95 natives encountered during the 6 months spent on archeological work in *Alacaluf* territory in 1935–36, supplemented by information from an *Alacaluf* living on Chiloé Island and a study of specimens in the museums in Oslo, Norway; Göteborg and Stockholm, Sweden; and the American Museum of Natural History, New York. Published sources and archeological data are cited when these show that cultural changes or modifications have occurred. Since Cooper (1917, p. 185) published his list of source material, the most important contribution is by Gusinde, who visited the southern group in 1923. Gusinde has published in final form only his data on physical anthropology (1939), but in several articles (1924, 1925 a, b, c; 1926 a; 1927; 1928 b; 1929) he gives a great deal of basic information on social and religious culture.

CULTURE

SUBSISTENCE ACTIVITIES

The subsistence pattern.—The failure of modern agriculture to spread southward into the Chilean Archipelago, beyond the limits it reached in pre-Spanish days (i. e., the island of Chiloé, with sporadic efforts at cultivation in the Guaitecas), supports the contention that this limit is climatically determined. Thus, the complete lack of agriculture among the *Alacaluf* is no reflection on them. This forced dependence on natural products is perhaps in part responsible for the conservatism of the *Alacaluf* culture, for there is no marked difference in food habits and equipment between the past, as shown by midden contents, and the present. In addition to the native diet, the Indians now beg food scraps from passing vessels in the north, and they trade for flour in the south, but this yields only a minor portion of their food. Generally speaking, shellfish, sea lions, and marine birds are the staples, supplemented with porpoise, land game, fish, and a very small quantity of vegetable foods. No data are available on the proportions of meat to shellfish and fish, though it was observed that the possession of a good meat supply did not interrupt shellfish gathering.

The whole *Alacaluf* pattern of life clearly follows the routine involved in the food quest, which significantly continues in its simplest, most elementary form. Small family units wander from place to place, never stopping long enough to exhaust completely the local shellfish supply. Established communities are unknown, and no clan system or chieftainship has evolved. Families come together only on rare occasions: for example, when they discover a whale that is dead or is in landlocked waters where it can be killed; when they hunt the sea lions that are whelping at rookeries on some of the off-lying islands; or when a vessel is wrecked, an event which is sure to draw together all persons in the immediate vicinity.

There seems to be little fixed seasonal migration at present, and the range of any one family is purely its own concern. In one instance, a family was encountered after a year within 40 miles of where it was first seen. Evidence of extended migration is shown by the presence of a northern man living among the southerners near Muñoz Gamero Bay, and by the discovery in 1932 of an *Alacaluf* hut near Río Douglas, west of Navarino Island, over 200 miles outside *Alacaluf* territory. Perhaps in former times, with a larger population, some seasonal movements were necessary, but this is no longer the case. Today, the scarcity of otter and coypus, and a seeming fondness for change of scene, provide motives for wandering farther afield than the food quest demands.

The equipment necessary to maintain life in this region is held to a minimum. A boat or canoe is an absolute essential. The average family carries fire rather than matches or other means of making it, poles for dislodging shellfish from rocks, a sea urchin and mussel spear, shellfish baskets, a harpoon and line, a bark bucket or tin pail, skins for covering huts, an ax, and an iron knife. They make other items of equipment when occasion demands, but usually discard them after use rather than carry them. This accounts in part for the discrepancies in the records of implements and weapons used, which was well demonstrated in the case of José Remulo. (See footnote 2, p. 56.) When shown a seal net, he did not recognize it, and had never seen or heard of one, yet his wife, children, and *Alacaluf* son-in-law all knew the correct name for it. In view of this, the description of the present status of their material culture is difficult. As a check, Lothrop's (1928) illustrations of implements and weapons were shown to Indians, both north and south. Most of the items were readily identified and named, but this still leaves a problem of interpretation. Are certain recognized objects now obsolete, or is their absence merely owing to the trait of making equipment only as circumstances demand?

Shellfish gathering.—Shellfish are collected from three zones: the area between high and low water mark, the sea bottom between low water mark and a depth of 15 feet, and deeper water beyond. All available species of sufficient size are utilized. Limpets, *Fissurella*, small blue mussels, and chitons are common along the rocky shore between high and low water. In the north, *Concholepas* and purple whelk are sometimes used, but beyond the Gulf of Trinidad they are too rare to be important. If weather permits, women go out daily at low tide to collect these species, dislodging them with only a wooden stick, and placing the shellfish in an open-mesh basket (pl. 28). As sandy beaches or mud flats are very rare in *Alacaluf* territory, such mollusks as clams are relatively unimportant.

From the sea bottom below low water, the *Alacaluf* gather sea urchins (pl. 25), two species of large mussels (*Mytilus ungulatus* and *M. magellanicus*), and, more rarely, a giant barnacle. These are taken in depths of not over 12 to 14 feet (3.6 to 4.2 m.), with a shellfish spear, used generally from a canoe by both men and women. In depths beyond reach of the spears, they are procured by swimmers, especially by women who are said to withstand the cold better. Holding the handle of the loose-meshed basket in his teeth, the swimmer descends to the bottom to a maximum depth of perhaps 30 feet (9 m.), where he dislodges the shellfish with his hands. After a few dives in the cold water (annual range 40° to 50° F.), the chilled swimmer hurries home and practically sits on the fire.

Hunting.—Sea lions are either harpooned or killed with improvised clubs at the places where they come ashore, or are taken with nets. Their rookeries are located in the less frequented districts, often in wave-cut caves. If the entrances are too low in the water for a man or canoe to enter, and if the approach is suitable, a net trap (fayet chá kal) will be set. This trap is made of sea lion skin thongs, and is roughly 50 inches (125 cm.) square, each mesh being 7 or 8 inches (18 or 20 cm.) square. It is loosely fastened with rush strands to a rough hoop of thin saplings. A harpoon line passed through the outer meshes is tied to form a running noose. Two poles hold the hoop and net under water in the entrance to the rookery. In attempting to get through the net, the sea lion breaks the rush fastenings so that the noose tightens about its body, generally back of the flippers, and it cannot escape. Campbell (1747, p. 57) states that in using net traps on land, one man holds the hoop while a companion frightens the sea lion into the net.

When sea lions cannot be reached with a club, they are usually harpooned. The detachable point remains in the flesh, while the free end of the line is held by the hunter, or is snubbed around a canoe thwart. If not mortally wounded, the animal is gradually pulled in and beaten to death with a shellfish pole. The same harpoon is also used for porpoise, but, unless the hunter is provided with the special spear (pl. 30), there is danger of overturning the canoe.

Otter and coypus are hunted almost entirely with dogs, which corner them in rock crevices, where they can be killed with poles. There is no record of taking otter with harpoons, and none of the skins seen had holes which might have been made by the harpoon points.

The huemul, a small deer found on Wellington and Riesco Islands and portions of the mainland, is hunted with difficulty, but its bones are fairly common in both modern and ancient midden refuse. Generally, the saw-tooth spear is used, or lacking this, a harpoon with its point tied to the handle by a short thong instead of the usual harpoon line.

In the south around Skyring and Otway Sounds and on Tierra del Fuego, where the grasslands border *Alacaluf* territory, the natives formerly killed guanaco, using perhaps spears, harpoons, and even bows and arrows, and bolas.

Birds, especially cormorants, form an important part of the diet. All species have the habit of gathering together at night and roosting on the ledges of small rocky islets. In late afternoon, two or three men go to an island and construct a small low shelter of sealskins or branches. They blacken their faces and hands with charcoal, and hide beneath the shelter until late at night when the birds are settled. They then creep out and catch one bird after another, carefully holding its head under its wing, the normal sleeping position, until they kill it by crushing the skull with their teeth. With care, they can capture nearly all of the roosting birds. One informant said that he and two other men had filled a canoe at one rock. Naturally, this procedure cannot be repeated too often at the same place.

A second method, used also by the *Yahgan*, involves several canoes. Two parties land on a rock from opposite sides. One lights torches of dry twigs, while the other rushes at the birds shouting and making all possible noise. The birds run toward the light, where many are clubbed to death.

Birds nesting on accessible rocky ledges are caught with pole snares (pl. 30), preferably on moonlight nights, but the commotion limits the take to a few birds.

The same kind of snare is used to capture steamer ducks (pato vapor). These large flightless birds have so much curiosity that they will frequently approach an anchored boat to investigate any noise, provided they do not see people moving about. A hunter conceals himself on a low bank overhanging the water, his snare projecting from the branches. A soft whistling sound, produced by vibrating the tongue, attracts the ducks within reach of the snare.

Penguins are most commonly captured when nesting in underground burrows. They can be taken with bare hands, but sticks are safer.

Other data on the capture of birds are found in earlier sources. King (1839, p. 370) describes the taking of blue petrels: "having caught a small bird, they tie a string to its leg and put it into a hole where blue petrels lay eggs. Several old birds instantly fasten upon the intruder and are drawn out with him by the string." Fitz-Roy (1839, 2: 199) reported a snare trap, apparently for swans, in Obstruction Sound: "a neatly constructed small wigwam about two feet high, at the entrance of which was a platted rush noose, intended as a snare." Coffin (Hanaford, 1867, p. 157) reported the use of live birds as decoys.

One informant disclaimed killing parrots and white-breasted oystercatchers, stating that to kill parrots would bring bad weather. For the other, he could only explain that it was not customary. The red-billed oystercatcher is, however, killed and eaten.

Apparently all varieties of bird eggs are eaten without restrictions.

Fishing.—None of the Indians seen in 1937 had fish lines, nets, or spears, but all immediately recognized the picture of a fishing line with slip noose for bait, shown by Lothrop (1928, fig. 88). As several individuals had braided sinew lines, they probably still use this fishing method at times. Notched stone sinkers are rare in the middens, and no fishhooks were used in any period. The lack of a hook is no handicap, as the fish living in the kelp beds will seize bait tied to the end of the cord and hold on long enough to be lifted out of the water. Coffin (Hanaford, 1867, p. 157) reported the use of a long, rough pole with a twisted grass line baited with mussels or pieces of fish. With this, fish were jerked into the boat.

Fish, generally robalo, sometimes enter coves where the water shoals gradually toward the head. Men, women, and children, accompanied by dogs, wade, swim, and beat the water with sticks, driving the fish into the shallows where they can be caught with the hands or with harpoons and spears. The dogs are said to dive and swim beneath the surface in pursuit of the fish. Stone fish weirs are found in the shallow coves in *Yahgan* territory, but few were seen in the western channels, perhaps because suitable places are rare.

Fish nets are apparently no longer used, although reported twice in the past (Marcel, 1892, p. 491; Byron, 1810, p. 76). Byron states that the net was held by two Indians, while the dogs "taking a large compass, dive after the fish, and drive them into the net." Net sinkers have been found only with the late archeological material on Elizabeth Island and vicinity. Presumably, nets were never very common.

The *Yahgan* took sardines with a special dip net or basket on the rare occasions when sea lions drove them into shallow water. A picture of this basket was recognized by some *Alacaluf* of both the northern and southern groups. Altogether, the evidence on fishing, including the relative scarcity of fish bones in the middens, suggests that fish were an unimportant food.

Plant foods.—All species of berries found throughout *Alacaluf* territory are eaten, but it was noted that when other foods were abundant, the available berry supply was only partially utilized. The

Indians also eat fuchsia seed pods. Wild celery, which is generally available at all old camp sites, is little used. The large-stemmed pangue (*Gunnera chilensis*) is available in limited quantities in the north. Though commonly eaten in Chiloé, the only record of its consumption among the *Alacaluf* is by Campbell (1747, p. 63), who states that they seem very fond of it.

Food preparation and storage.—The *Alacaluf* live from day to day on available food. They store none because even carefully dried foodstuffs mildew in the great humidity. A surplus of seals or birds is kept unskinned in the huts until spoiled.

There seem to be no fixed hours for eating. Generally, nothing is consumed until about 10 o'clock in the morning; whatever is on hand is eaten. When hungry during the day, each person, even very young children, roasts his own shellfish. In late afternoon or after dark, birds and meat are prepared without marked division of labor. All birds, even penguins, are plucked and cut up according to a fixed pattern: the outer wing joint is cut through and the flesh stripped in one piece from the other wing bones and from the breast. The legs are removed with all adjacent muscles. By this method, the pieces are quickly cooked on the coals, then tossed on the ground in front of the person for whom they are intended. Seal meat is laid on the coals in large chunks or roasted on the end of a stick; if no one is very hungry, it is thoroughly cooked. It is served in the same fashion as birds. Fish is roasted like meat. Sea urchins are the only species of shellfish commonly eaten raw. No utensils are used either to prepare or eat food; even White men's utensils have not changed this custom. The only food taboo is relatively unimportant: if the first sea lion killed by a boy is small, the meat is not eaten by the people, but is given the dogs lest the boy have poor hunting luck, always killing small sea lions.

DOMESTICATED ANIMALS

There are no animals domesticated except the dog. These show little uniformity in marking or color, but are fairly uniform in size, standing about 18 inches (45 cm.) at the shoulder, and generally have coarse straight hair, long tails, and pointed ears (pl. 28). They are extremely hardy, and are practically self-sufficient, gathering much of their own food in the form of shellfish. From their masters, they receive but meager scraps of food and indifferent or cruel treatment. Children were observed twisting a dog's legs just to hear him howl, yet the animals remain loyal and obedient. They are used in hunting otter, sea lions, and penguins when these are among rocks beyond the reach of clubs or spears. Under certain conditions, they are also used in gathering fish, a procedure described above, and in this demonstrate an unusual agility in the water.

Cooper (1917, pp. 185, 186) suggests that the canoe Indians in pre-Magellan times may have lacked dogs; this is supported by the lack of dog bones in all middens examined to date in both *Alacaluf* and *Yahgan* territory.

The only other trace of domestication is the practice of keeping live steamer ducks until they are needed for food. Though these ducks can be tamed, they are tied to the hut, where they can be protected from the dogs.

HOUSES

About 50 *Alacaluf* huts (aht ti pai) were seen between the Gulf of Peñas and the Strait of Magellan. Hut sizes vary with the extent of level ground available and the number of occupants. Of 24 measured, the smallest was 9 feet 2 inches by 6 feet 3 inches (3 m. by 2 m.); the largest was 14 feet by 9 feet 6 inches (4.4 m. by 3 m.). Considering the difficulty of finding open level places among the forest trees, the proportion of length to breadth is surprisingly constant.

These huts have sometimes been described as circular, but all seen were oval, with the long axis at right angles to the entrance. The average length was 12 feet 8½ inches (4 m.); the width 7 feet 7½ inches (2.3 m.); the height 5 feet 10⅓ inches (1.8 m.). All were near protected landing places along the shore.

The framework is made according to a definite system that varies slightly with the material available. In order of preference, materials used are *Fuchsia magellanica*, the canela tree, and, at last choice, cypress (*Libocedrus tetragona*). Figure 10, *a*, shows the start of construction, the dotted line representing the intended outline. Four poles are forced into the ground; the ends are then bent over and tied together to form two approximately parallel foundation arches 1½ to 2 feet (45 to 61 cm.) apart. In one excellent example erected on open ground, the saplings were 10½ feet long (3 m.), the arches 20 inches (50 cm.) apart at the ground and 34 inches (85 cm.) at the top, the span 8 feet 9 inches (2.6 m.), and the height 6 feet 3 inches (2 m.).

Three to nine (average, six) other poles forced into the ground along the sides of the floor are bent over and tied to the foundation hoops with pieces of rush, or, occasionally, are hooked under the hoops (fig. 10, *b*). These all run approximately parallel with the long axis of the house. Three to six lighter saplings are placed outside these. Pairs from opposite sides are bent across the frame to form transverse arches, which are tied at one or two places to the longitudinal poles.

The framework, which is strong and solid (fig. 10, *c*; pl. 27, *bottom*), is covered with sea lion skins, one hut seen having 13½ separate skins.

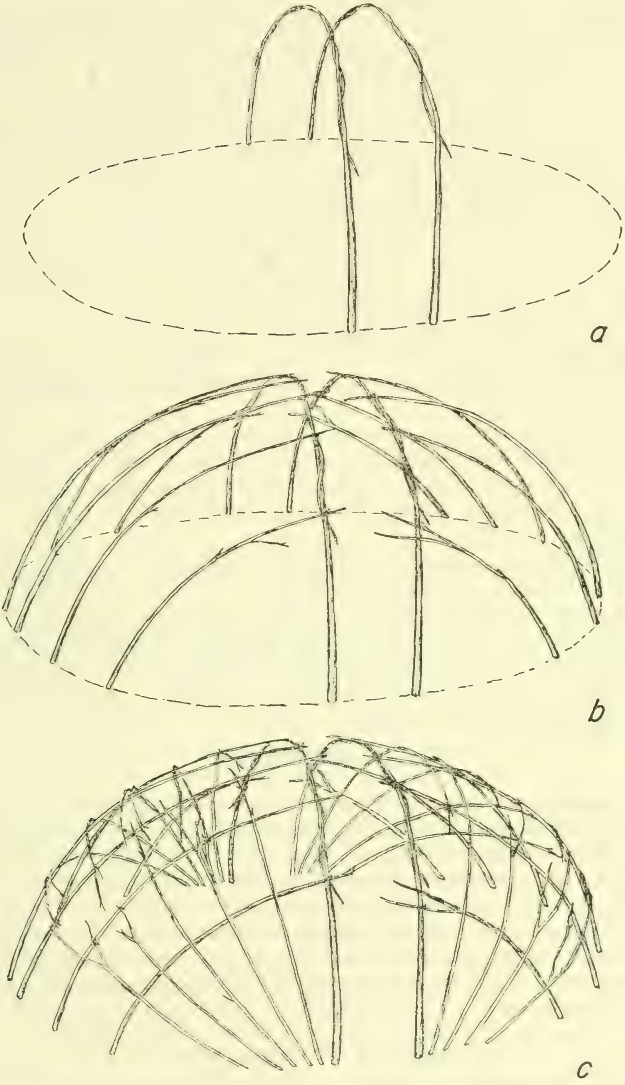

FIGURE 10.—*Alacaluf* hut frame construction. Showing three progressive stages of building.

Lacking sufficient skins, either bark, sacking, grass, or ferns may be substituted. Holes are stopped with fern fronds (pl. 24, *right*), grass, or short branches. Entrances high enough for a person to crawl through are usually left on both sides between the two foundation hoops. Branches or fronds of the large fern (*Blechnum magellanicum*), are placed across the opening and spring back into position after a person has passed through. They keep out the wind and rain quite effectively. For this purpose, the *Alacaluf* will carry a bundle of fronds when moving camp.

The fire is built in an oval hearth 2 by 3 feet (60 cm. by 90 cm.) in the center of the hut. Sometimes the humus beneath burns away, leaving a pit a foot deep (30.5 cm.), but fire pits are not intentionally dug. The roof covering above the fireplace is left quite loose so as to be moved back if the flames are too high.

The family sit and sleep on a thin covering of small beech or tepu branches. With a good fire, these huts are comfortable and quite dry.

Among the southern *Alacaluf*, one may now see circular tipis of light poles covered with skins, and canvas or sacks. These are identical with the modern *Yahgan* summer tipi, which may be their source. In erecting houses, men generally cut the poles and women place them.

A larger hut is sometimes made for initiation (?) ceremonies. Skottsberg (1913, pp. 598–599) encountered one in Puerto Bueno that "was 12 meters long, 4 meters broad, 3½ meters high" and apparently similar to the elliptical house but had more foundation arches. Another seen at Cuarenta Días Bay by Señor Remulo was 50 to 60 feet (15–18 m.) long and had six entrances. The use of these structures will be described later.

DRESS AND ORNAMENTS

Formerly, small skin mantles or capes and triangular skin pubic covers were worn. Today, all adults have some White man's clothing—cast-off garments secured from passing steamers and naval vessels. Children are generally naked. The *Alacaluf* have not learned to care for clothing, making no effort to alter or repair it.

Ornaments consist only of strings of crudely made tubular bird-bone beads, a few perforated snail shells, and sections of calcareous marine-worm tubes (pl. 31, *e*). Small flat bone pendants are occasionally made.

TRANSPORTATION AND COMMUNICATION

All transportation is by water, land journeys being limited to short hunting trips. Today, all northern *Alacaluf* have dugout canoes, about 12 to 16 feet (4–5 m.) long, while many of the southern group have chalupas acquired in trade from the Whites. Both canoes and chalupas are rowed by both sexes while a man or woman steers with a paddle. Some have a small rough mast and a crude sail of sacking or canvas. All dugouts had coamings of driftwood planks roughly nailed to the gunwales and cleats. As no attempt is made to caulk the seams, these serve more to keep objects in the canoe than to keep water out. If planks are not available, pieces of sea lion skin, stiffened by being held over the fire until semiscorched, may be substituted. Canoes are provided with oars, steering paddles, and a skin bailing cup.

Historical records show that originally all the *Alacaluf*, like the *Yahgan*, used bark canoes. A small example in the Salesian Museum in Punta Arenas collected about 1904 is identical with the *Yahgan* canoe. It is made of three strips of beech bark, sewed with baleen strips, and is 12 feet 1 inch (4 m.) long with a maximum beam of 2 feet 2 inches (67 cm.) and a depth inside the hull of 1 foot 8 inches (50 cm.). There are eight thwarts lashed on top of the gunwales, 10 to 15 inches (25–37 cm.) apart. Small narrow ribs split from a short-stemmed shrub are placed next to each other for the full length.

In the latter half of the 18th century, plank boats patterned after the dalcas of Chiloé began to replace bark canoes. Knowledge of the latter survived as late as 1927, when one was in use near Muñoz Gamero Bay.

During the 19th century, the plank boat was the most common type, finally disappearing from use about 1915 (pl. 30, *top*). Only two specimens, both collected by Skottsberg in Port Grappler, exist today. One is now in Stockholm, the other in Göteborg.[3] Both are made of five planks, the middle one being roughly the same width throughout and bent upward at the bow and stern. Each plank is slightly hollowed inside; the bottom side has two straight parallel raised portions near the edges, projecting out far enough to protect the plank lashings when the boats are beached or portaged. The Chilotan dalca, judging from the only surviving fragment, has by contrast a flat elliptical bottom while the upper surface is much more curved in cross section. Moreover, the Chilotan specimen has drilled lashing holes whereas the *Alacaluf* example has rectangular holes cut with an iron chisel. This is significant, as there are no records of the *Alacaluf* using drills, and none occur in archeological material.

The modern dugout canoe (pl. 29) appears to have spread to the *Alacaluf* from the *Yahgan* since the beginning of the present century.

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[3] Measurements and detailed description of these are filed in the American Museum of Natural History.

Both tribes, before using a canoe, heat it and increase the beam by forcing cross braces inside. The dugout was introduced to the *Yahgan* by one of their people who saw them being made in Rio de Janeiro (King, 1839, 2:224), whence this practice may have come.

One record reveals that when a canoe near San Pedro lighthouse was damaged beyond repair, two men with one ax completed a new one in a week.

For communication, smoke signaling is commonly used. The smoke from leaves heaped on the fire in the hut will call back hunters or bring the nearest neighbors to the spot, but it is not known if any special signals are employed.

MANUFACTURES

Basketry and containers.—Both the northern and southern *Alacaluf* use many small, open-mesh, coiled baskets (pl. 31, *b*) of rush made with a technique like that shown by Lothrop (1928, p. 139, fig. 65). The rush and the baskets have the same name (chep-pash). A storage and berry-gathering basket (dtai yo), made from the same rush (pl. 31, *a*), has the tightly coiled technique shown by Lothrop (1928, p. 135, fig. 61). This type was also made by both the *Ona* and *Yahgan*. The former called it and the rush "tai," which may indicate that the *Alacaluf* learned its manufacture from the *Ona*. In making the tightly coiled baskets, the *Alacaluf* use a small deer-bone awl, which they also employ to make holes in leather and bark (pl. 31, *f*).

Cylindrical water buckets are made of bark and sewn with either baleen or sections of vine (pl. 31, *c*). Large tin cans now sometimes serve the same purpose.

Skin working.—The *Alacaluf* do not tan. They lash seal and otter skins to rectangular frames made of four sticks to dry them, the smoke in the huts effecting some unintentional curing. Skins to be used on canoes are held over a fire until hard.

Stones.—Except for sinkers, the *Alacaluf* no longer make anything of stone, though they use unworked pieces as whetstones. The knowledge of pressure flaking of stone arrow points came late, apparently being acquired in the south.

Wood.—Woodworking is mediocre. The rough work is done with an ax, the fine cutting with an iron knife. Knives, made from iron barrel hoops, are sharpened across the end like a chisel, and not on the sides. This has a definite prototype in the old mussel-shell knife, formerly a very important implement. The best of numerous published references to the use of mussel shells for cutting is by Francis Fletcher in 1578 (1652, p. 38). The large choro mussel shell is rubbed against a whetstone, which grinds away the thin brittle edge, making an extremely effective knife which is hard enough to cut bone. It is also used as a chopping tool, the pointed, narrow portion near the hinge being broken away and the shell firmly lashed to a stone that is naturally oblong. Held in the hand, it is used like an adz, the stone providing the necessary weight. Paddles collected as late as 1907 show shallow fluted markings running transversely across the blade, such as would have been made by this tool. Both northern and southern groups retain knowledge of the shell knife and chopper, and perhaps still use them on occasion.

Weapons and hunting equipment.—The shellfish pole (ayorki), an important implement, is a roughly cut section of sapling about 4.5 feet (1.3 m.) long and 2.5 inches (6 cm.) in diameter, generally slightly flattened along two sides of the lower end.

The shellfish spear is made of a canelo sapling, with the bark left on. The lower end is split into quarters which are sharpened into prongs and wedged apart by two short sections of sticks; or else a section of harder, stronger wood, used to form the prongs, is lashed to a canelo handle 10 to 15 feet (3 to 4.5 m.) long (pl. 25).

The club used for killing seals and for fighting is not always carried, for the ayorki will serve as a substitute. Skottsberg collected a hardwood club 2 feet (61 cm.) long.

The sea lion harpoon (salta) is still used. The shaft, 7 to 9 feet (2 to 2.7 m.) long, is cut from a young canelo tree, "harpoon wood." The bark is removed but the shaft retains its natural taper. The thick butt end is split to form a socket for the head and is whipped with a few turns of leather thong or braided sinew to prevent further splitting. The modern head is of whalebone with two barbs and a flattened tapered basal end expanding on both sides of the shank (pl. 31, *h*). The older form, still used in 1908 (pl. 31, *g*), had a single barb and a base that expanded only on one side of the shank (Skottsberg, 1913, p. 604). The harpoon line, carefully cut from male sea lion skin, is tied tightly to the shank of the harpoon point just forward of the expanded base, and is looped or hitched to the shaft back of the center of balance. The lines are up to 60 feet (18 m.) long.

The spear, although well known and still used, is seldom seen (pl. 30, *left*). Its shaft is like that of the harpoon, but the whalebone point (pl. 31, *d*) is not detachable. The longest point (3 ft. 7¾ in., or 1 m.) is in the Salesian Museum, Punta Arenas, Chile; it has 6 inches (15 cm.) of saw teeth beginning 2½ feet (¾ m.) back of the point. The usual length is about 18 inches (½ m.) but all have the saw-toothed barbs set well back from the tip. *Yahgan* fish spears differ from these in that the saw teeth begin at the tip. The *Alacaluf* form is good for killing porpoise, guanaco, and deer, and for fighting, but less useful for fish. It is presumably a late addition to *Alacaluf* culture, for the only specimen found in midden deposits came from

Elizabeth Island (Bird, 1938); it differs from all other ethnological specimens in having offset barbs and side knobs on the butt.

Bows and arrows are now obsolete, though remembered by both groups. Their greater frequency among the southern group and the increasing scarcity of evidence of pressure flaking of stone in middens toward the north indicate that bows and arrows came from the south at a late date. The form of the stone points, though not conclusive, suggests *Yahgan* influence. The damp climate must have made it difficult to keep bows and arrows in good condition and so it is not surprising that they never were very important. More significant, perhaps, is that knowledge of pressure flaking of stone came with this weapon.

Slings were formerly common. Though remembered today, they appear not to be used.

Bolas were sometimes used by the last generation of the southern group. Except for very rare surface finds, bolas weights do not occur archeologically in the western channels. On the other hand, the first canoe people, presumably *Alacaluf*, took them into what was later *Yahgan* territory. A weapon definitely designed for use in open country was impractical in the channels.

The bird snare is in common use today as in the past. It consists of a light pole 4 to 6 feet (1.2–1.8 m.) long with one or two stiff slip nooses split from a creeper (*Campsidium chilense*), or of baleen (pl. 30, *bottom*, *right*).

Fire making.—Today nearly all *Alacaluf* use matches, though they are frequently without them. In the past, they are known to have made fire with a piece of pyrite and "flint." As pyrite is very rare in the middens, it is very doubtful that all families had it. More probably, then, as today, they kept a fire burning continuously, even carrying it with them, and when this was extinguished by accident, borrowed new fire from neighbors.

Both sexes gather fuel though only men were observed using axes. They seldom cut enough fuel to last all night, so that before dawn someone goes, with considerable grumbling, to get more. They prefer the wood of the tepu (*Tepualia stipularis*), a very excellent and readily combustible fuel, without which it would be difficult to start a fire in this excessively wet region.

EXCHANGE AND DISTRIBUTION OF GOODS

In the past there were few things, with the possible exception of pyrite, that any group could not secure for itself. Today, however, all are accustomed to barter and are beginning to show some firmness in demanding goods which are of practical use. As in the past, each family exists independently of others, making its own equipment.

SOCIAL AND POLITICAL ORGANIZATION

Property and inheritance.—Property rights are not strict. An individual owns the tools and equipment he makes, but shares them with other members of the family. On one occasion, a man traded his wife's bark bucket for a shirt while the women were absent from camp. Later, his wife was furious because he refused to give the shirt to her; he had no right to make this trade. Canoes and skin hut covers are family property. There are no territorial rights; evidently, anyone is free to come and go where he wishes. Abandoned hut frames may be used by anyone needing them. Some evidence of property rights appears at the time of death. (See p. 77.)

Social organization.—There are, apparently, no clans or chieftainships. The families that live and hunt together are generally blood relations. The advice of the oldest individual may be asked, but is not always followed.

WARFARE

Fitz-Roy (1839, 2: 194) quotes Low's report that crude spears, arrows, and clubs painted red were stuck into the ground around a roughly carved figure of wood as a declaration of war or as a warning of attack. The custom survives today. In the south, a man once stole another man's wife. The husband tried to get her back by force, but was beaten off by his competitor. He returned in the night with his brother and placed one red wooden replica of the tant-tarrh (pl. 30) at either end of the hut and behind it. Thus, having given a warning that he would try to kill the man, the latter's relatives could not hold him accountable. The two brothers subsequently ambushed the rival and killed him with a spear. The woman was blamed and beaten. In 1920, a similar warning was given a party of Chilotans by some of the northern *Alacaluf* (Oyarzún, 1922, p. 167).

The *Alacaluf* have, on insufficient evidence, been accused of cannibalism. They deny the practice, and, with two exceptions, no human bones were found in the middens.

LIFE CYCLE

Childbirth.—During childbirth, men leave the hut and some woman helps the mother, though a man may assist his wife if they are alone. A separate hut is sometimes made for the mother. The husband stands guard. He has red paint on his face, and on his right shoulder a string of white feathers similar to that shown by Lothrop (1928, pl. 15, *B*) about his head, and a white kelp goose skin tied across his breast. (This decoration and costume are also used by the guard at initiation rites.) Such a guard at a birth was reported in 1828 (King, 1839, p. 315), and the custom is still practiced. The umbilical cord is cut with a choro shell knife, which, together with the placenta, hair from the mother and father, parrot feathers, and a live coal, is wrapped in a piece of skin and buried by the father beneath the "woman's hut." This practice has no explanation except that it is customary. The newborn baby is washed with sea water. After the birth of a first child, the father and mother may take nothing but water for 2 days. They deny that this is done for subsequent children. One informant stated that the father puts some of his hair into a small package, which the child wears. Gusinde (1925 b, p. 142) reports that the father wraps a section of the umbilical cord in leather and wears it around his neck for a few months after birth to insure the child's well-being. Some informants say the child is named by the father; others say the mother. Deformed babies are not killed but are allowed to take their chances. Children are permitted to nurse as long as they want to, so that a mother may occasionally be seen feeding an older child as well as a new baby.

Childhood.—Infants and small children, though shown considerable affection, are not well attended. If, when learning to crawl, they fall into the fireplace, adults show them no sympathy. All children bear small scars left by such burns. A baby sleeps close to its mother or in her arms and has no special cradle or garments. When the baby soils itself, the mother scrapes it with a mussel shell. She replaces any soiled twigs covering the sleeping place. When able to walk, a child receives little parental attention and soon is able to care for itself.

Children, barely able to walk, were seen seeking mussels on the rocks immediately in front of the hut. With one or two clutched in their hands, they crawl back into the hut to roast and eat them. By the age of four, children cook nearly all the shellfish they consume, and begin to handle the shellfish spears. They spend hours in a canoe tied to the shore, hooking up sea urchins and mussels (pl. 25).

Children are allowed to do as they please, but are probably punished if their behavior conflicts with their parents' wishes.

Girls' puberty.—At her first menstruation, a girl remains in a special hut, neither eating nor drinking. These restrictions are said to apply only to the first period.

Initiation ceremonies.—Several White men have seen *Alacaluf* assembled for what were obviously special occasions. Whether these can properly be called initiation ceremonies is questionable. It is certain only that they occur when there is an abundance of provisions on hand. If a whale is obtained, smoke signals call together everybody in the vicinity. A large house is made and the people stay together as long as the whale meat lasts.

A young *Alacaluf* who had lived just south of Puerto Bueno related that he had twice seen the big huts erected and had participated in the affair. On the first occasion, a dead whale had been found, and the shellfish poles were not painted in advance. The second affair was planned beforehand by an older man and carried out in due course. Its duration, however, is uncertain; apparently it terminated when the food supply was exhausted. In preparation for a hunt at a sea lion rookery some distance away, they built a conical house in which to make clubs for killing the sea lions, and a new set of shellfish poles (ayorki) with which the women could procure food while the men were away. They painted the clubs white, with red spots on the heavier end, and the poles red on the handles, with red spots and bands on the lower portion. These were all set upright in the ground in a circle in the center of the hut. The night before the hunt, the men slept in this hut apart from the women, and sang. Before leaving, they painted their faces, chests, and arms white, and a red stripe across the chest between the shoulders, so that the seals would not enter the water and escape.

The hunters took one young boy with them, but no women. They found a cave full of sea lions, blocked the entrance, and harpooned and clubbed many animals. They cut out the bones but did not smoke or dry the meat. With canoes full of meat and green hides, they returned home, stopping when within calling distance of the camp, to shout a warning, "ahhhhh ha ha hoo," whereupon the women went into the huts, covered the doorways with sealskins, and were not supposed to look out. When near the landing place, the young boy was thrown into the water and swam ashore. Avoiding the women's huts, the men went to the conical house and were forbidden to look at or speak to the women. The boy, however, entered the women's huts, described the trip to them, and remained there for the night, being forbidden to visit or speak with the men. It was jokingly explained that the boy was thrown into the water "so he would not look at the women." Next morning, the ban was off. The women fetched the sealskins from the men's hut to start preparing them. At night, the men and women slept together as usual in the regular huts.

The women and girls spent the entire following day in canoes gathering shellfish, while the men and boys built the big house (yinchihaua). The house, like that described by Skottsberg, had four entrances and two fireplaces, but, unlike the *Yahgan* hut, the poles were unpainted. The men and boys moved into it that night, but the women and girls slept in the regular huts for all but one night of the gathering. The first night the men prepared the head bands, which had to be made in the absence of the women. One of the head men burned a piece of seal meat, an unexplained action. From then on, the time was spent mainly in singing, some "dancing," considerable horseplay, and a little story telling, while the candidates received instruction in making weapons and in what they should and should not do. There seem to be few fixed rules for procedure except in the manner in which certain participants painted themselves. Boys present for the first time wore a plain leather head band (Lothrop, 1928, fig. 90, *A*), but did not paint their faces. Those participating for the second time put horizontal red stripes across the upper lips, cheeks, and chins, with a red smear on their chests, and wore white kelp goose skin head bands. More experienced participants placed vertical red stripes on their faces with smudges of white and an inverted T on their foreheads, and white stripes on their cheeks. The women used no paint.

In the morning, the men struck the first woman who looked into the big house. The women had to fetch drinking water, and the men seized the buckets of the first three (?) who passed them in the entrances, and threw the water on them, after which the women and girls were allowed to enter freely. During the day, men and boys had the middle portion of the house, the women and girls the ends, the girls and boys sitting cross-legged along their respective sides. If they became tired and leaned over, the men struck them and made them sit up. A candidate who refused to obey was bound hand and foot. All cooking was done in the women's house, though fires were kept burning in the big house. Like the *Yahgan* (p. 84), the *Alacaluf* drank through a bone tube, an unusual article, which is unknown archeologically, except in *Yahgan* territory. The women had to ask permission to leave the lodge to seek shellfish and to cook; the candidates asked to go out to relieve themselves, which they did only after dark. The men cut the firewood as usual.

For amusement, a rounded piece of wood was hung from the roof, 18 to 24 inches (45 to 61 cm.) above the floor. When the last lines of the Whale Song were sung, this was struck with a short stick and made to swing, while the initiates seated along the walls tried to dodge it without moving from their position. An ordinary swing made with two thongs and a cross bar was also suspended from the house frame.

All candidates had to bathe in the sea in the evening, even if it were cold. After the first bath, their chests were painted red, but were not scratched as among the *Yahgan* (p. 99). During the first days, whenever women were absent, the boys made small symbolic harpoons with painted shafts, similar to those shown by Lothrop (1928, pl. 9), and stood them against the wall behind their places. The shellfish poles not in use stood against the walls at the ends of the lodge. If either fell over, it was a bad omen.

At night, the older men danced, wearing the heron-plume head band (Lothrop, 1928, pl. 15, *A*). Two or three performed at once, each more or less independent of the others. Boys with short white sticks were posted at the doorways to prevent the women, who were excluded from this performance, from seeing it.

The candidates had to learn the Whale Song at night when alone with the men. Subsequently, the women were ordered to their huts, and a man, dressed and painted as when guarding a woman at childbirth, was stationed on the top of the big house. If anyone approached, he shouted and beat the roof with a stick. Meanwhile, the men and boys inside put on their head bands and paint, according to rank and station, and began the first verse of the Whale Song:

We sing up on the mountain,
We put the chepana over our head and body,
We enter the big house to paint the little poles,
The buzzard is flying at the top of the sky.
Today we will not go out, tomorrow we will not go out.
This we command all.

The men and boys now left the big house, leaving those who had painted their noses and cheeks inside, while certain initiates acted as guards to keep them from looking out. Two initiates with their hands tied behind their backs, one at each end of a harpoon line about 25 feet (7.6 m.) long, were led out by older men. This line was then stretched taut at the height of their hands and the men and boys gathered in a group around each initiate. Three women were called by name from the women's huts, where all the women and girls were at the time. Accompanied by a special jumping song, they jumped together three times over the line and back, afterward running to the big hut. In groups of three, the remainder of the women and girls were called to jump. Those failing to clear the line were struck by a man wearing the heron chepana. The men and boys returned to the big house immediately after the jumping. At the conclusion of the singing, an old man and a boy had a mock wrestling match outside the big house.

There were various songs about different animals and birds, some sung with the women, others sung by men and boys alone at night.

As among the *Yahgan* (p. 104), at one point during the ceremony a man called "aak ai" went off in the woods and disguised himself as a spirit, painting black stripes down his face and his body solid black. He was naked, except for a white band with a black spot in the center of it and a white kelp goose skin tied across his chest. He carried a special club tied to his waist and began shouting,

hu-hu, harrh, hu-hu, haarh.

while still out of sight in the forest. Hearing this, the people in the lodge beat the walls and shouted to drive him away. Women and girls seeing him cried, for he struck with his club those he could catch. After whooping and banging about for some time, he stopped his impersonation.

Toward the end of the initiation, the women spent one day in the big house without eating or drinking, while the men and boys wearing their paint and head bands stayed in the women's houses. Except for singing, the women's activities are not known. In the evening, the men and boys returned to the lodge, where the women remained that night with their heads lowered so as not to see what the men were doing, lest they be hit with a stick. This marked the end of the festival, and on the following day the group dispersed. There was no distribution of presents as at the close of the *Yahgan* initiation (p. 99).

During this ceremony a large seal tooth and a small white stone were buried together to insure good weather.

Additional data on ceremonies have been recorded by Gusinde[4] from the southernmost *Alacaluf* at Muñoz Gamero. He uses "yinčhihaua" to designate secret men's rites performed in a conical hut by masked participants for the express purpose of frightening and subduing the women. Gusinde distinguishes this from a boys' initiation ceremony, ká la kai, which is presumably the equivalent of the ceremony described above. It was held in the long oval hut. As this hut is called yinchihaua throughout *Alacaluf* territory, it is curious that the term should apply here to distinct ghost rites.

North of the Muñoz Gamero group, bark or skin masks are sometimes used, but not in connection with the big oval house rites. As a joke of no particular significance, a man may secretly mask and paint himself, hide in the woods, and try to frighten the women.

The concentration among the southern *Alacaluf* of ghost rites, which are obviously closely related to the *Ona* klóketen (p. 104) and the *Yahgan* kina (p. 104), and the wider distribution of adolescent initiation ceremonies, similar to the *Yahgan* čiéxaus (p. 120), can be interpreted to mean that the former diffused from the *Ona* whereas the *Yahgan* čiéxaus and the *Alacaluf* yinchihaua (the initiation rites and festivities connected with the house of this name) are older elements among the canoe-using Indians.

Marriage.—The Indians deny any restrictions prior to marriage. After marriage, husbands are likely to be jealous and may beat their wives for infidelity. Marriage involves no ceremony; a man and woman decide to live together, and the man moves in with the girl's family. If they need more room after having children, they set up an independent household. There are no restrictions on sexual relations, except for 15[5] days of continence after childbirth. A widower may marry his dead wife's sister, but not his brother's widow. Polygamy is now rare, but is not forbidden; a man may marry two sisters or else a woman and her daughter by a former husband.

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[4] Summarized or referred to in various articles: Gusinde, 1925 a, pp. 50–60; 1926 a, pp. 287–312; 1929 d, pp. 344–348.

Death observances.—After a death, everyone at the encampment paints his face black. All the deceased's property is burned except the canoe, canoe equipment, and skins for covering the hut. A southern *Alacaluf* stated that immediately after a death, the men beat the outside of the hut with sticks, shouting "ey-yah-yu-ma." At a child's but not at an adult's death, baskets are thrown into the fire. The deceased, with the knees and hands against the chest, is wrapped in sealskins in as small a bundle as possible. Disposal depends on the situation. In the south, the body is interred if possible, but in much of the western channel area, any hole cut through the tangled roots fills immediately with water, so that caves or protected places along the base of cliffs are sought or the body is hidden in the forest. Some meat and shellfish of all available kinds are placed beside the body and live coals are put in a miniature hut built nearby. If the grave is at the base of a cliff, the rock above or near the body is smeared with red paint.

After disposing of the body, the *Alacaluf* make a chepana, a braid of three leather thongs, about 5 feet (1½ m.) long, which holds feathers of the carnecero hawk in each turn of a thong. They fasten the chepana across the top of the hut frame at right angles to its long axis and leave all of the deceased's possessions in the hut, taking only the canoe and the hut cover.

The next party to visit this place on seeing the chepana knows that a death has occurred. They are supposed to burn or otherwise destroy the hut frame and the objects in it. The newcomers will not camp here, and before going on must place a redbird snare pole upright in the ground to warn others that a death recently occurred and that the camp is not to be used. It is probably only immediate relatives who avoid the site permanently.

Archeological evidence lends some support to verbal accounts. No grave goods accompany bodies found in the position described; a few shells of several species, bird and fish bones lie near them, and in the south a red smear was seen on a nearby rock.

ESTHETIC AND RECREATIONAL ACTIVITIES

Art.—Crude lines sketched on bone pendants and paint applied to persons and objects during rites are the sole expressions of art. Formerly the Indians put some red paint on their weapons, but now rarely do so.

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[5] This figure should not be taken too seriously. See: Measurement of time and counting.

Games, amusement, and toys.—No games or children's toys are reported, though swings of rawhide thongs with wooden cross bars are sometimes made. As far as observed, children content themselves with imitating their elders, occasionally making miniature huts, weapons, and baskets, and gathering a few shellfish and roasting them in the little huts.

Music.—The *Alacaluf* have no musical instruments, and sing little or not at all except when the big house is erected. They like to listen to a phonograph, but of a wide variety of modern recordings they evinced real liking only for American Negro spirituals. Hearing these even for the first time, they hum and follow the tune quite well.

Dances.—There are no good descriptions of dancing, which seems to be confined to the initiation (?) rites.

Narcotics.—The *Alacaluf* had no native narcotics. They have acquired a fondness for tobacco, but cannot obtain it regularly.

Drinks.—Leaves, twigs, and berries (?) of the wild currant (*Ribes magellanicum*) placed in water and left for some days produce a drink called palpas, which is said to be intoxicating. This mixture, boiled, is called ow waf na. As boiling is foreign to their culture and is done in old tin cans, it is presumably a recent development. From the Whites the *Alacaluf* have acquired a fondness for alcoholic beverages, but none of the natives encountered in 1935–36 requested liquor.

SHAMANISM AND CURING

Data on medicine are meager. Canelo bark is said to be used as a laxative. From the leaves of *Senecio candidans*, poultices are made for rheumatism. Anyone may prepare these things, though a certain old man had unusual knowledge of this subject. Incantation, massage, and sucking are used in shamanistic curing (Gusinde, 1925 b, p. 145).

There is some belief in witchcraft. Hair clippings are burned lest someone twist the hairs with sinew into thread and pound them between stones, causing the person to whom the hair belonged to become thin, sicken, and die. Gusinde (1925 b, p. 142) also reports that hair scraps were buried or made into a wad and forced down a dog's throat.

There are no rules for camp sanitation. Excrement is found anywhere in the vicinity of and even inside the hut.

RELIGION

Religious ideas are vague and conflicting and probably have been influenced by the White man. The confused data antedating Gusinde's investigations, together with archeological evidence on treatment of the dead, clearly indicate some belief in spirits and in an existence after death.

Gusinde (1925 b, pp. 137–140) is convinced of the native origin of a clear-cut concept of a single supreme creator-god, Xolas, who resides in a celestial region but is concerned with the daily acts of mankind. At Xolas' instigation, a soul enters the body of each newborn baby and remains there until death, when it rejoins him.

Living in an unpleasant climate, where storms and gales constantly interfere with the search for food, the *Alacaluf* have various superstitions about the weather.

Beliefs which, with some variations, are common to both groups are the following:

Bad weather is caused by throwing sand or small pebbles at the hut or into the water; by a flock of parrots flying overhead, especially if one looks at them or kills one (the Indians do not like to touch a parrot); by throwing shellfish into the fire and leaving them there (this also causes rough water); and by throwing empty shells overboard. The shells of the shellfish eaten when traveling by canoe are carefully saved, and must be placed on land above high water mark. This is an old belief, for Byron nearly lost his life by violating the custom (Byron, 1810, p. 92).

Ashes thrown on the water bring fair weather. If bad weather overtakes a canoe party, several eggs thrown in the sea will make it smooth; lacking eggs, old baskets may be burned. One northern *Alacaluf* claims to have seen a small baby thrown overboard at a time of extreme danger. If a snowstorm blows from the north, burning a handful of any kind of feathers will turn the snow to rain and cause a south wind, which brings fair weather in this region.

To assure good, calm weather, the southern *Alacaluf* bury a large sea lion tooth with a small white stone, then dig them up the following "year," i. e., sometime later, and throw them in the sea. The northern group wraps a seal tooth and stone in a teal duck skin, together with a bit of the duck's meat, and two feathers from the wing or tail, digging them up and burning them the next "year."

All *Alacaluf* are extremely vague about units of time. Beyond "yesterday" and "tomorrow," and "winter" and "summer," they make little distinction. Even those who know Spanish have difficulty in correctly using our units of time. Their inability to count is partly to blame; most persons can count to five, five being synonymous with "many." Some, however, do not know the word for four.

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Bird, 1938; Borgatello, 1928; Bulkeley and Cummins, 1927; Byron, 1810; Campbell, 1747; Cooper, 1917; Fitz-Roy, 1839; Fletcher, 1652; Gusinde, 1924, 1925 a, 1925 b, 1925 c, 1926 a, 1927, 1928 b, 1929, 1937, 1939; Hanaford, 1867; King, 1839; Koppers, 1925 a; Lothrop, 1928; Marcel, 1892; Oyarzún, 1922; Skottsberg, 1913.

PLATE 23.—**Alacaluf territory.** *Top:* East side of Wellington Island. Typical of Western Channels. *Bottom:* Carlos III Island and Strait of Magellan. (Courtesy Junius Bird.)

Plate 24.—**Alacaluf territory.** *Left:* North end of Serrano Island. *Center:* Forest scene, Río Frio, Wellington Island. *Right:* Large fern used in *Alacaluf* huts. (Courtesy Junius Bird.)

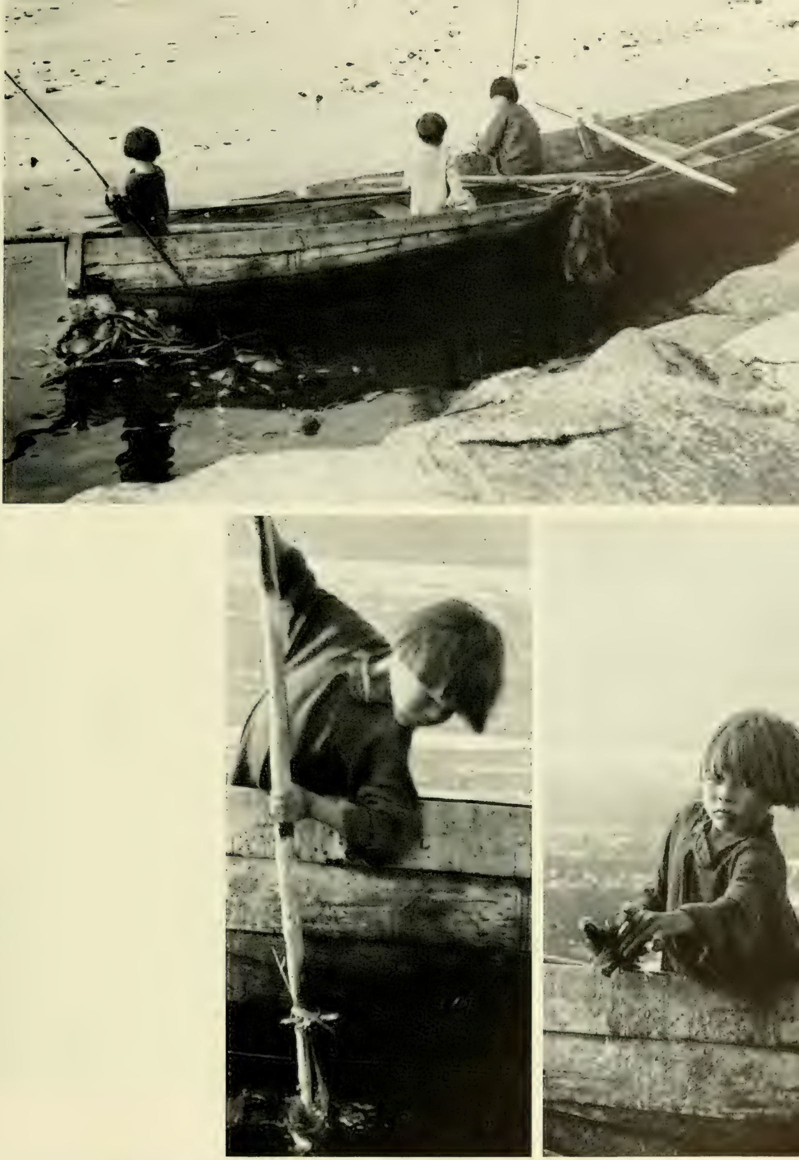

PLATE 25.—**Alacaluf children.** Puerto Río Frio, Wellington Island. *Top:* Gathering sea urchins. *Bottom (left):* Boy using sea urchin spear. *Bottom (right):* Removing sea urchin from spear. (Courtesy Junius Bird.)

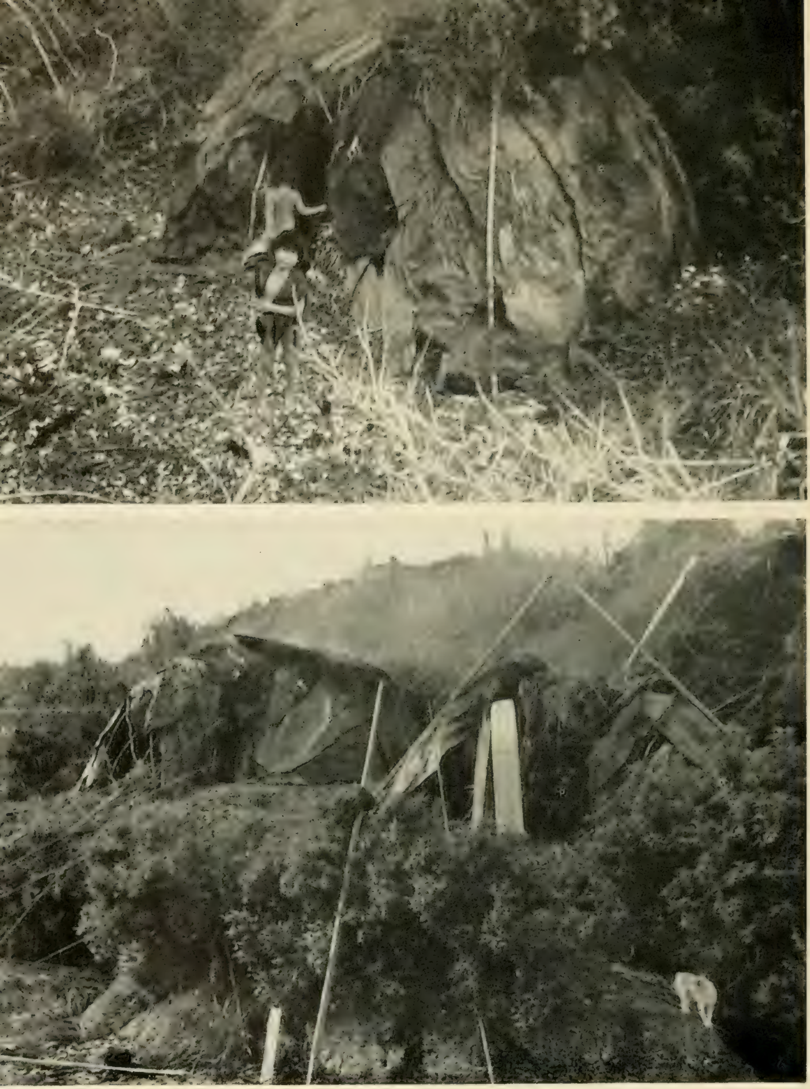

PLATE 26.—**Alacaluf camps.** *Top:* Hut, Escape Reach. *Bottom:* English Narrows. (Courtesy Junius Bird.)

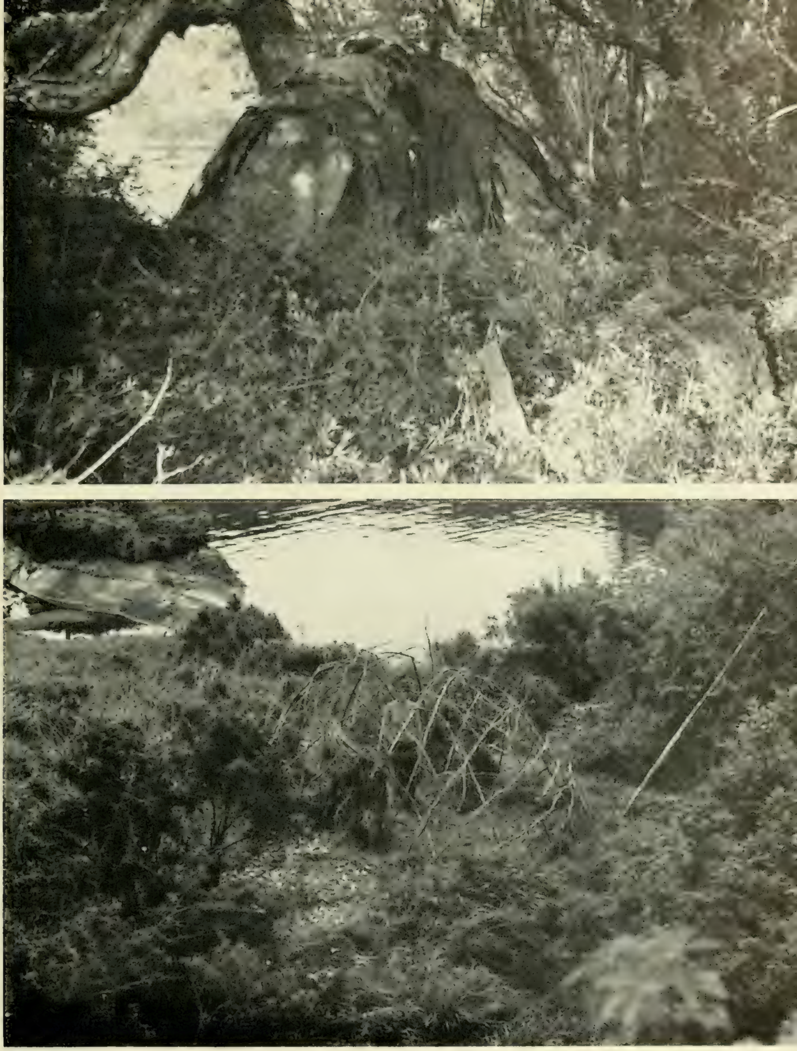

PLATE 27.—**Alacaluf huts.** *Top:* Puerto Río Frio. Rear view of hut. *Bottom:* Hut frame. At entrance to Iceberg Sound. (Courtesy Junius Bird.)

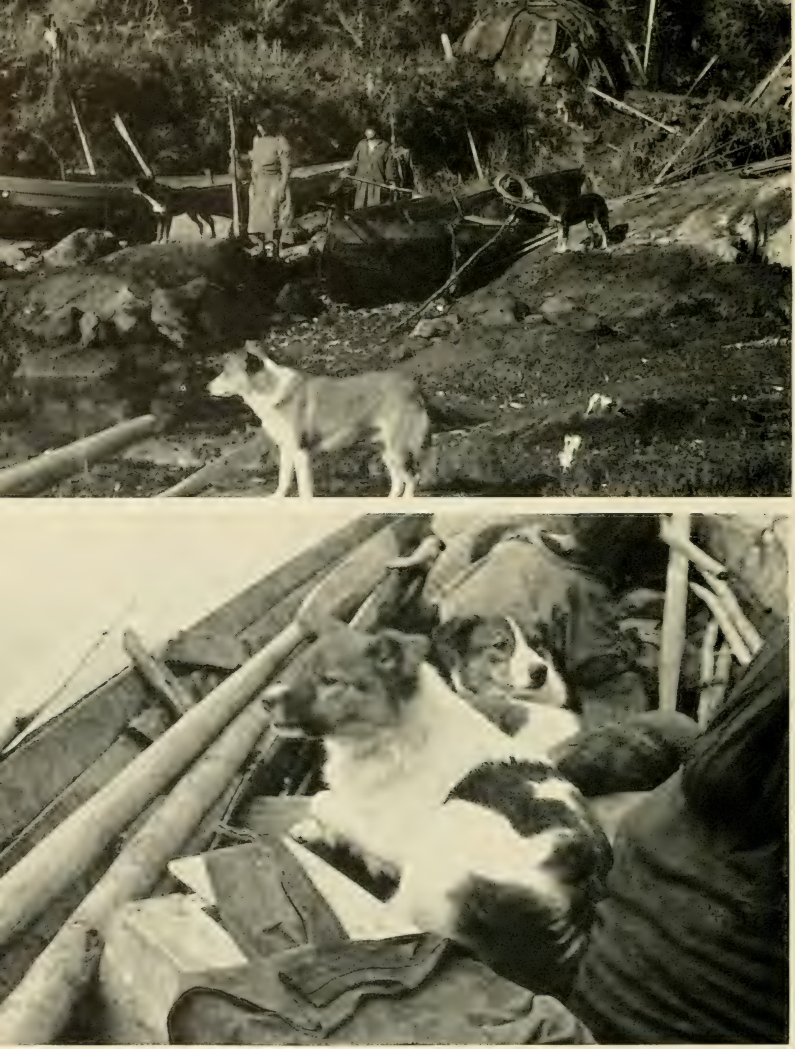

PLATE 28.—**Alacaluf life.** *Top:* Women going after shellfish. English Narrows. *Bottom: Alacaluf* dogs. Puerto Eden. (Courtesy Junius Bird.)

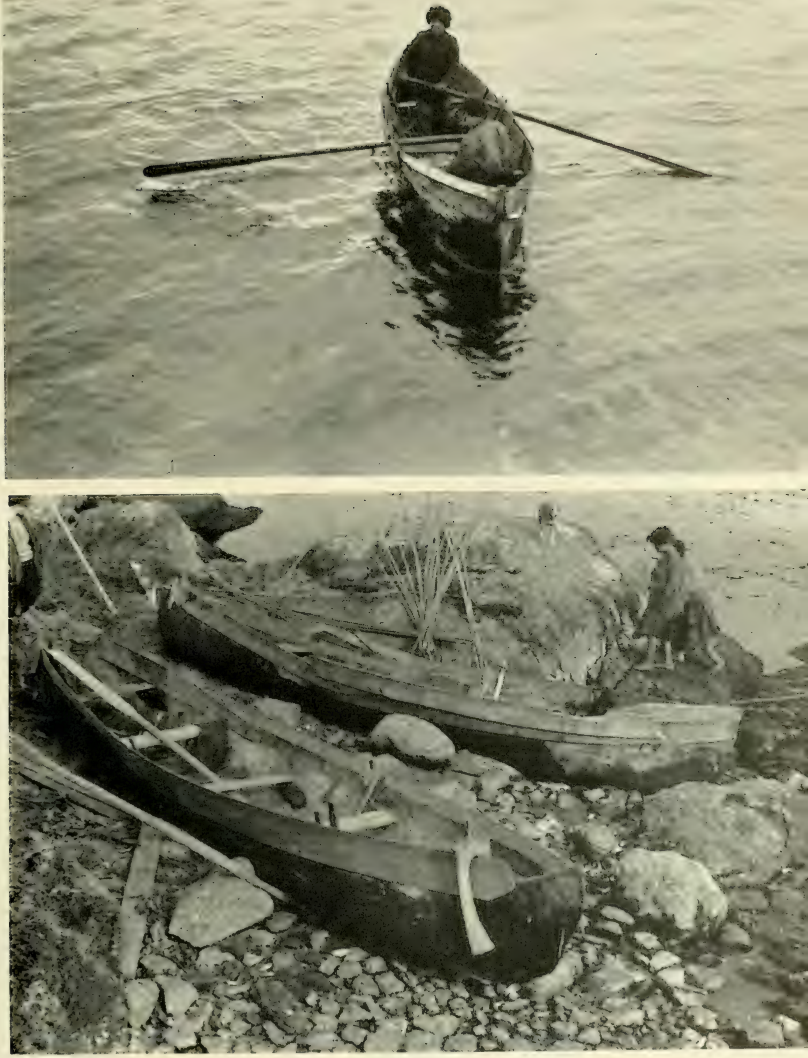

PLATE 29.—**Alacaluf canoes.** *Top:* Puerto Bueno. *Bottom:* Dugout canoes with planked gunwales at English Narrows. (Courtesy Junius Bird.)

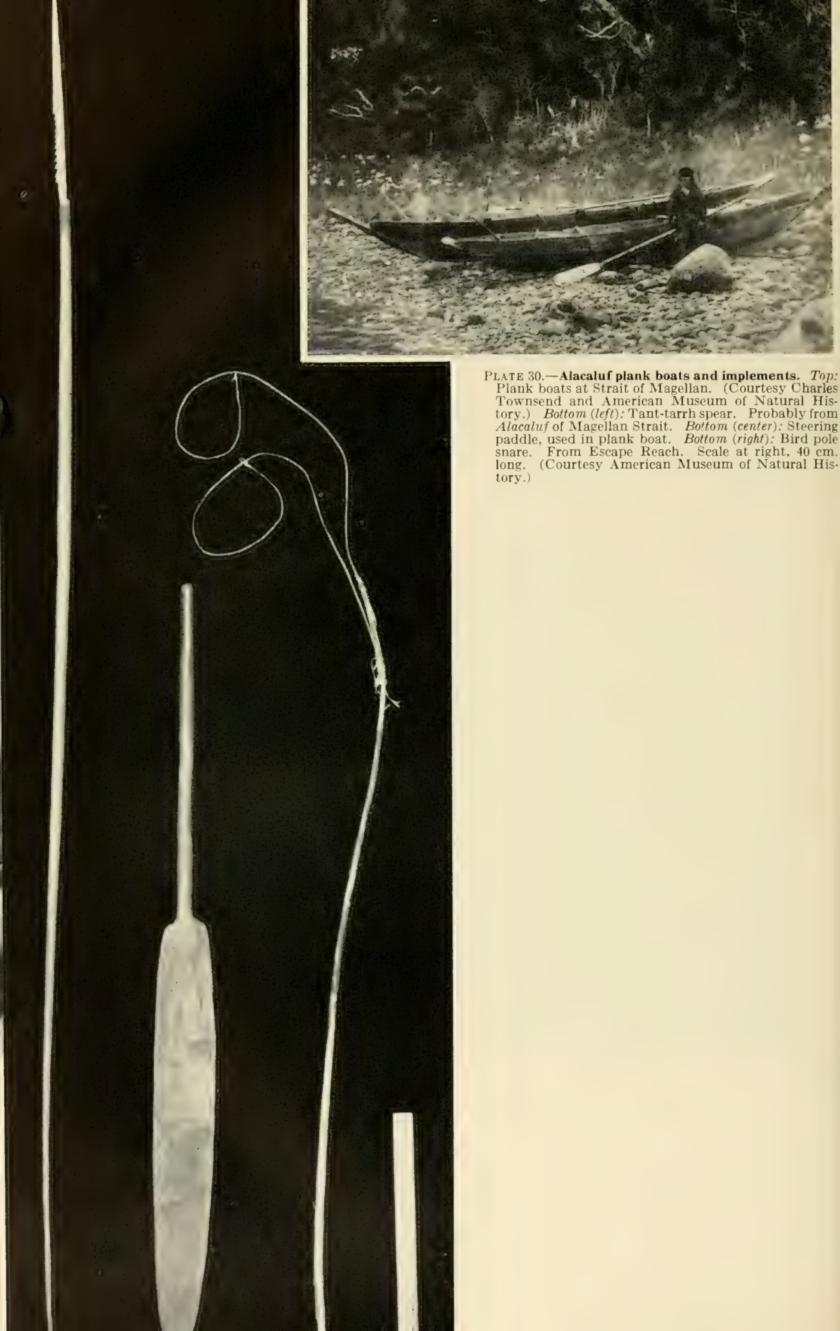

PLATE 30.—**Alacaluf plank boats and implements.** *Top:* Plank boats at Strait of Magellan. (Courtesy Charles Townsend and American Museum of Natural History.) *Bottom (left):* Tant-tarrh spear. Probably from *Alacaluf* of Magellan Strait. *Bottom (center):* Steering paddle, used in plank boat. *Bottom (right):* Bird pole snare. From Escape Reach. Scale at right, 40 cm. long. (Courtesy American Museum of Natural History.)

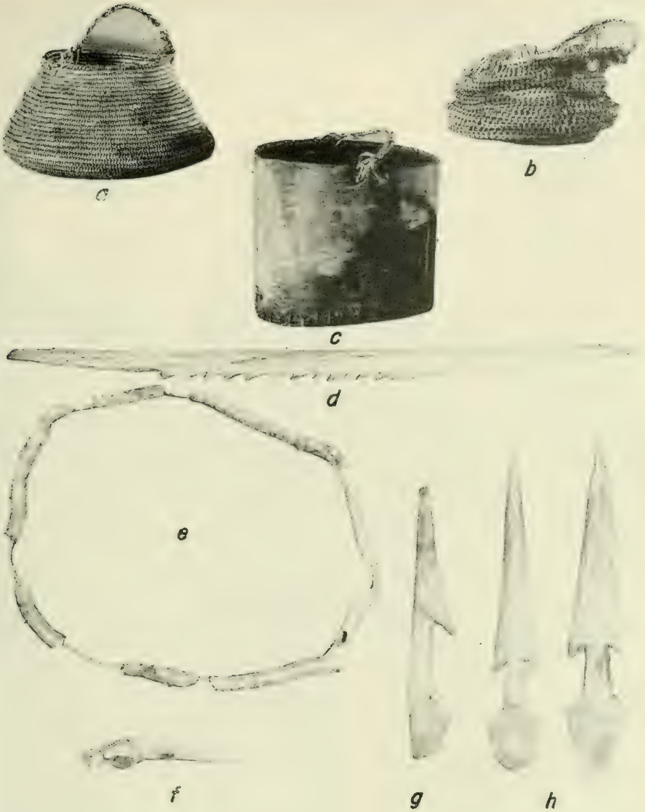

PLATE 31.—**Alacaluf artifacts.** *a*, *b*, Coiled baskets; *c*, bark bucket; *d*, saw-tooth point for Tanttarrh spear, probably from *Southern Alacaluf; e*, necklace of marine worm tubes, from Puerto Eden; *f*, bone awl, 19 cm. long, from Escape Reach; *g*, old type single-barb harpoon point, Wellington Island; *h*, 2 modern harpoon points from English Narrows. (Courtesy American Museum of Natural History)

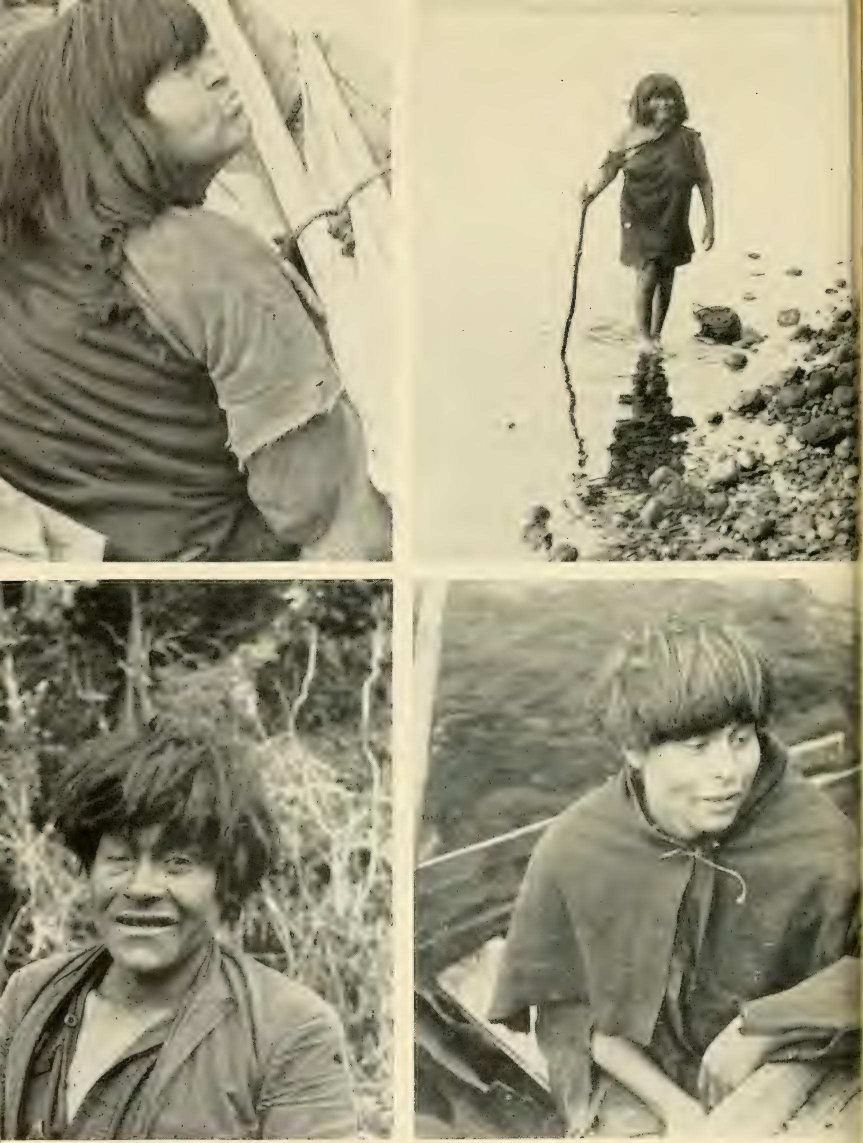

Plate 32.—**Alacaluf Indian types.** *Top: Alacaluf* women. *Bottom: Alacaluf* men. (Courtesy Junius Bird.)

THE YAHGAN

By John M. Cooper

INTRODUCTION

Natural environment.—The *Yahgan* habitat is archipelagic, the mountainous islands constituting the last outposts of the Andean chain before it dips beneath the sea at Cape Horn (map 1, *No. 1A;* map 2). Atmospheric temperatures at sea level differ somewhat from locality to locality, with a summer mean around 50° F., a winter mean close to the freezing point, and a winter minimum around 10° F. Snowfalls not infrequently occur even in the summer months (pl. 35). Relatively very cold or very warm spells are usually of short duration. Sudden changes in temperature, in wind velocity, and in sunshine, cloudiness, and precipitation are characteristic. Violent squalls and strong gales are common.

The islands up to about 1,500 feet altitude are heavily wooded, chiefly with beeches (*Nothofagus betuloides* and *N. pumilio*, evergreens; *N. antarctica*, deciduous), together with Winter's bark (*Drimys winteri*), "cypress" (*Libocedrus tetragona*), and leña dura (*Maytenus magellanica*). The forest floor is thickly covered with rotting and rotten fallen trunks, which with the thick spiny masses of barberry bushes (*Berberis ilicifolia* and *B. buxifolia*) and holly (*Pernettya mucronata*) make travel through the woods extremely slow and difficult. Foxes and rats, the land mammals that could have helped in the *Yahgan* dietary, were eschewed. Marine mammals, fish, and other sea food were abundant in most localities. As a result of the foregoing conditions, the *Yahgan* lived mostly on the water and along the shore line, penetrating inland very little.

Territory.—In the last century and probably from much earlier times the *Yahgan* regularly occupied the southern coast of Tierra del Fuego Island from about the eastern end of Beagle Channel to Brecknock Peninsula, and the islands south of this line to Cape Horn. But they evidently wandered more widely; *Yahgan* house sites and implements have been found as far north as Elizabeth Island in the Strait of Magellan (Bird, 1938, p. 260). Between Good Success Bay and the eastern end of Beagle Channel, there was considerable contact, barter, and intermarriage with the *Ona;* between Brecknock Peninsula and the western end of Beagle Channel, with the *Alacaluf.*

Names and divisions.—The *Yahgan* called themselves *Yámana*, "human beings." They were first called *Yahgan* by the Rev. Thomas Bridges, from Yahga, the native name for the Murray Narrows region, a locality much frequented by some of them. *Yámana* would be preferable for anthropological use, but *Yahgan* is so well established in the literature that we are retaining it in the Handbook. The *Yahgan* recognized five subdivisions, each with its own aboriginal name: a southern, an eastern, a central, a western, and a southwestern (Koppers, 1927, p. 468; 1928 a, pp. 158–159; Gusinde, 1937, pp. 199–208; Lothrop, 1928, p. 120, map opp. p. 24). These subdivisions differed more dialectically than culturally.

History of investigation.—The *Yahgan* were first visited and described by Jacques L'Hermite in 1624. The next important landmark was the *Beagle* expeditions under Admiral Robert Fitz-Roy in 1829–32. It is, however, to the Rev. Thomas Bridges that we are indebted for our first intimate insight into *Yahgan* culture and linguistics. The Italo-Argentinian expedition in 1882 and the French Cape Horn expedition in 1882–83 made important advances in *Yahgan* somatology but were largely indebted to Bridges for their cultural and linguistic data. The field studies of Fathers Martin Gusinde in 1919–23 and Wilhelm Koppers in 1922 served to complete the picture, particularly as regards social and magico-religious life. Samuel K. Lothrop's field study of 1924–25 (1928, 1932 a) rounded out our knowledge of *Yahgan* technology. The only remaining gap is that of archeology, a gap in part filled by Vignati and by Lothrop, and more recently by Junius Bird in 1932–37.

The more valuable first-hand sources on the *Yahgan* from 1624 to 1917 are: Bove (1882, 1883: the two identical on culture); T. Bridges (1866, 1886, 1892, 1893); Dabbene (1911); Despard (1863); C. W. Furlong (1909, 1917 a); Hyades (1885); Hyades and Deniker (1891: of basic importance); Lovisato (1883, 1885); South American Missionary Magazine (1854–); Spegazzini (1882). The anthropological information given in these and the other sources up to 1917 is analyzed and made available in Cooper (1917). Since 1917, the most important contributions are: Lothrop (1928), for technology; Koppers (1924) and especially Gusinde (1937), for all phases of culture, particularly the social and religious ones; Von Hornbostel (1936), for music; T. Bridges (1933), for language and general culture; Vignati (1927) and Bird (1938), for archeology; Gusinde (1939), for physical anthropology.

Gusinde's exhaustive monograph, "Die Yamana" (1937), based mostly on his and Koppers' field studies and in part on a thorough combing of the literature, gives nearly all that is known of *Yahgan* culture. If this large and expensive monograph is not accessible, the following more important papers may be consulted: Gusinde (1921–22, 1924, 1925 a, 1925 c, 1926 a, 1926 c, 1927, 1928 b, 1929); Koppers (1925 a, 1925 b, 1926 a, 1926 b, 1927, 1928 a, 1928 b).

For bibliographies of the *Yahgan* see: Cooper (1917), for sources, with comments on each, to 1917; Lothrop (1928), for sources from 1917 to 1928; Gusinde (1937), for selected and added sources, and for evaluations (pp. 48–161) of the publications of the more important first-hand observers.

Language.—The *Yahgan* language with its five mutually intelligible dialects constitutes a distinct linguistic family, with no known relationship to any other. The elder Bridges' *Yámana*-English dictionary, the one completed in 1879, contains about 23,000 words, a carefully restricted, not a padded, list, as he himself emphasized (1933, p. xvii). *Yahgan*, in contrast to *Ona*, is markedly euphonic. There were no words for numerals beyond three, and none for fractions.

Population.—According to our first dependable estimates, the *Yahgan* population, in the third quarter of the 19th century, totaled between 2,500 and 3,000 souls. In 1881 a sharp decline set in. By 1884 numbers had dwindled to about 1,000; by 1886, to 400; by 1899, to 200; by 1902, to 130; by 1913, to less than 100; by 1933 to 40. The immediate causes of the sudden drop in the eighties were the respiratory diseases and a severe outbreak of measles in 1884, followed by epidemics of typhoid, whooping-cough, and smallpox. Syphilis does not appear to have played an important role. Contributory, or rather basic predisposing, factors were, it seems, the then introduced European ways of life, especially the clothing, but also the food, alcoholic beverages, and type of shelter and work.

CULTURE

SUBSISTENCE ACTIVITIES

Foods.—The *Yahgan* had no domesticated plants, and no domesticated animals except the dog. Whether the earlier pre-Columbian and post-Columbian *Yahgan* had dogs is uncertain. No bones of dogs have been found in early archeological sites in *Yahgan* or other Fuegian territory. The earlier explorers,—L'Hermite, 1624; d'Arquistade, 1715—make no mention of the dog in their descriptions of *Yahgan* culture, as none is made of it among the *Alacaluf* by the 15 accounts of them prior to Narbrough's of 1670. The dog was first recorded among the *Yahgan* in 1823 by James Weddell; it is recorded consistently thereafter by later observers (Cooper, 1917, pp. 186–187). Dogs were not eaten.

Lothrop (1928, p. 32) rated the relative importance in the *Yahgan* dietary of their foods as follows: (1) Easily of first importance, mussels; (2) next, seals, and fish of many kinds; (3) next, porpoises, gulls, and bird eggs; (4) then, whales, limpets, crabs, sea urchins, geese, penguins, cormorants; (5) last and least, otter (chiefly in the west), guanaco (only in the east), conchs, ducks, berries (especially wild black currants). The fungi eaten were those growing on trees; those growing on the ground were not eaten. Some wild celery and wild parsnips and two varieties of cress and young shoots of tussock grass were also eaten. Foxes were eaten only in famine as a last resort. Salt was not used.

Hunting.—Seals were hunted with spear or harpoon from canoes or from land (pl. 36), or killed with clubs. Whales were occasionally hunted in the open sea with spear or harpoon; stranded or dead whales were eagerly exploited. Dogs helped in otter and fox hunting. Cormorants were taken at night by torchlight with clubs; also with a pronged wooden gorge hook. Birds were taken with pole snares (fig. 11, *d*) and with single or multiple tether snares of sinew or whalebone. No lifting pole snares, deadfalls, or pitfalls are reported.

Fishing and sea-food gathering.—Mussels were gathered by hand; limpets, with a flat-ended stick; sea urchins, with a four-pronged wooden fork; crabs and other Crustacea, with a harpoon or a three-pronged stick. For taking sea food, the *Yahgan* also used a spear with two diverging shanks, or two to four spears lashed together. Women fished with a kelp-stem or braided whale-sinew line, that had a slipknot of whalebone or of quill at the end, instead of a hook, to hold the bait; slowly drawing the fish to the surface, they would grab it by hand. Fishhooks were probably lacking. Weirs of branches or stakes were used. True fish nets were absent. The nearest approach thereto was a small basket attached to the end of a pole and used as a sort of dip net for diminutive fish.

Food storage.—Limited quantities of dried tree fungi were stored; so too was oil, especially whale and seal oil.

Food preparation and eating.—Large mussel shells were used for melting fat and holding grease. Water was heated and grease melted by throwing hot stones into them, but there is no record of stone boiling proper.

Shells of large mussels were sometimes used as plates; shells or bark buckets as cups; hollow bird bones or reeds as drinking tubes.

CAMPS AND SHELTERS

There were no permanent villages. Certain groups of natives related apparently by blood and marriage frequented and occupied more or less fixed separate localities within the respective five sub-

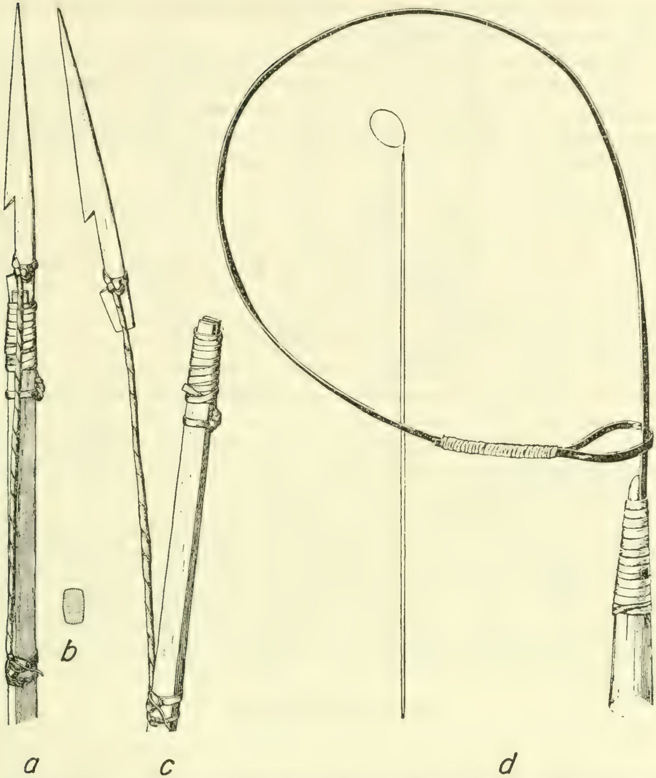

Figure 11.—*Yahgan* harpoon and pole snare. *a*, Harpoon assembled for casting; *b*, cross section of harpoon shaft; *c*, position when dragging through water (length of harpoon head 10 in., or 25.5 cm.); *d*, two views of bird snare (diameter of loop 6½ in., or 16.5 cm.). (After Lothrop, 1928, figs. 82, 87.)

divisional areas. Apart from initiation and other social or religious functions, which brought larger numbers together temporarily in a common camp, each biological family or small group of two or three families tended to camp apart, more frequently in the same shelter.

The two chief forms of family shelter were the beehive hut and the conical hut. The beehive or domed hut, the more common form, especially in the west, was circular or elliptical in ground plan, made of a framework of flexible sticks bent over dome-shape and fastened together, and covered with grass, ferns, branches, bark, skins, or anything at hand (pl. 33, *b*). The conical hut, more frequently used toward the east, was tipi-form, with a framework of stiff stout saplings or tree trunks.

The ground in the interior of the hut was often, but not always, scooped out, to a depth of 2, 3, or more feet (0.6 to 1 m.) beneath the outside ground level, and was usually covered with a little grass or some branches. The fire was made in the center. The huts had one door, facing the sea; or else two doors, one facing the sea, the other being opposite.

Archeological stratification in the *Yahgan* area of Navarino Island shows an earlier culture with shelters like those still used by the *Alacaluf*, oval in ground plan, having two entrances, and without scooped-out pits; and a later one with circular shelters having one entrance, and with pits 12 to 18 feet (4 to 6 m.) in diameter, scooped out in some cases to a depth of more than 3 feet (1 m.) (Bird, 1938, p. 261). The two historic types of *Yahgan* wigwam, oval and circular, unpitted and pitted, may thus represent two chronologically distinct cultures.

Larger and more substantial huts were built for initiation rites (q. v., infra); sometimes very small ones, for the use of children. The *Yahgan* also at times used caves or made a very rude shelter of a few branches tied together or stuck in the ground.

At the time of Lothrop's visit in 1924–25, practically all the then surviving *Yahgan* were accustomed to pass the winter months at Puerto Mejillones and Porto Piedra, on Navarino Island, in huts poorly constructed of ill-fitting boards (Lothrop, 1928, p. 188). Lothrop (1928, p. 131) considers the use of the wing of a large bird for sweeping out the shelter to have probably been the result of missionary influence.

DRESS AND ORNAMENTS

Clothing.—The chief garment, for men and women, was a small cape, of seal, sea-otter, or fox skin, sometimes of two or more skins sewn together—occasionally of bird skins—worn with the fur outside, covering the shoulder and breast or reaching to the waist, and held in place by a string across the chest. It was commonly shifted outdoors over the windward shoulder. Very frequently it was left off entirely. The women rarely if ever went without a small triangular pubic covering of bird skin or hide, held in place by a string attached to each upper corner and encircling the waist (pl. 33, *f*). No head covering was worn. Usually the *Yahgan* went barefoot, but sometimes when traveling or hunting on land they wore rather crudely made moccasins (fig. 12), resembling closely the *Ona* ones in pattern, of sealskin, with the hair outside, and stuffed inside with grass (cf. Lothrop, 1928, p. 124, photo). The eastern *Yahgan*, when hunting guanaco in winter, sometimes wore guanaco skin leggings, like the *Ona*, from whom they

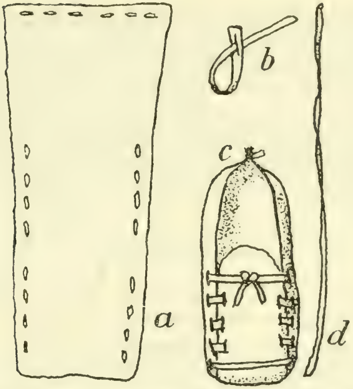

FIGURE 12.—*Yahgan* moccasin. (After Lothrop, 1928, fig. 46.)

probably borrowed them. The *Yahgan* occasionally used a rude fingerless working glove of hide. The clothing of the *Yahgan* seems to us utterly inadequate, given the climatic conditions—temperatures commonly around and well below freezing point in winter, high winds, frequent snow, hail, sleet, and cold rain—but in view of the seeming role played in their decline by introduced European clothing and their relative good health prior thereto, perhaps their clothing was reasonably well adapted to the environment.

Hairdressing and depilation.—The hair was worn loose, not in braids, and was often banged. Sometimes a sort of tonsure was worn. A sharp-edged mussel shell was used to cut the hair. For combing the hair, more commonly the jawbone of a porpoise or otter, or a toothed comb made of whalebone, was used; sometimes, a brush comb made of a bundle of roots (Outes and Bruch, 1910, p. 138) or of quills (Gusinde, 1937, p. 423). Depilation, with two mussel shells as tweezers, of all face and body hair was practically universal, for both sexes.

Scarification.—Scarification was practiced as a mourning observance and tattooing as an initiation rite (Gusinde, 1937, p. 863), but neither for ordinary decorative purposes. There was no head deformation, no ear, lip, or septum piercing, no body mutilation of any other kind.

Painting.—Smearing the head and body with grease or oil was as much protective as decorative. Face and body painting was common, sometimes with use of a small spatula. Only three colors—red, black, and white—were used. Red was derived from burnt earth, black from charcoal, and white from clay. Red symbolized peace;

white, war and ritual; black, mourning. Designs were very simple, confined to lines, dots, and, less commonly, circles.

Ornaments.—Personal adornments were: necklaces, of sections of bird leg bones strung on braided sinew, of strung punched shells (*Photinula violacea*), or of frapped hanks of braided sinew, often colored red; bone or shell pendants, sometimes attached to the necklaces; and wristlets and anklets of sinew and hide. Feather diadems and bird-skin, feather, or down-ornamented fillets or forehead caps were also used.

TRANSPORTATION

Canoes.—Travel by the *Yahgan* was almost entirely by water. Their earlier sole form of watercraft was the built-up bark canoe, of a crescent or gondola shape that characterizes other craft well up the west coast of South America to Perú; the plank boat, the *Araucanian* dugout, the seal-hide float, and the double-ended reed balsa were absent (Lothrop, 1932 a, pp. 253–54).

The *Yahgan* canoe (pls. 34, 35) was made of three strips of beech bark, one-half inch to more than an inch (1.2 to 2.5 cm.) thick, which ordinarily formed the bottom and two sides respectively. Average length was about 15 feet (5 m.), with a range from about 12 to 20 feet (4 to 7 m.); gunwale to gunwale width in center, about 3 feet (1 m.); depth in center, about 2 feet (0.6 m.). The bark, taken only from the evergreen beech (*Nothofagus betuloides*), was stripped off in the spring, when the sap was running. In removing the bark from the tree, the natives used a bone chisel or mussel-shell knife to cut it and a bone barking tool to strip it, and in ascending the tree held themselves thereto with a strong rawhide thong. After smoothing the bark on both sides with a small chisel, they cut it into three cigar-shaped pieces. These pieces were then sewn together with whalebone or with shreddings of warmed saplings, the seams being wadded with the stringy seams of wild celery grass or with moss mixed with mud. The gunwales were next lashed on. The ribs, of split Winter's bark, were then fitted in and locked in place under the gunwales. The thwarts, usually five or six, of hardwood, were inserted and lashed to the gunwale.

The fireplace was set amidships. The paddle was in one piece with a long lanceolate blade and short round-section handle without cross-piece or other grip. The *Yahgan* canoe leaked much; the cylindrical bailers (pl. 33, *e*) were usually of bark or sealskin. Sealskin thongs and braided grass ropes were used as mooring lines. The construction and repair of the canoe were the man's task; but its management, including paddling and mooring off shore in a kelp bed, were the woman's. In a sense, she was mistress of the canoe, with its hearth and ever-lighted fire. In a favorable wind a crude sail, made of a sealskin or of several skins sewn together, was sometimes set up—a practice whose origin, native or European, is uncertain. (For details on manufacture and use of canoe, cf.: Lothrop, 1928, pp. 143–145; 1932 a, pp. 251–253; Gusinde, 1937, pp. 438–457.)

After about 1880 the *Yahgan* began to give up their traditional bark canoes, and to adopt the dugout. Still later, prior to Lothrop's visit in 1924–25, the dugout had been entirely superseded by the dory, of European type and origin.

The *Yahgan* never adopted the plank boat from their *Alacaluf* neighbors and never used rafts or skin-covered watercraft, so far as our records reveal.

MANUFACTURES

Pottery, weaving, and metallurgy were entirely absent; no traces of pottery have been discovered archeologically in *Yahgan* territory.

String-making and sewing.—Plant fibers, plain, shredded, or braided, were used in basket making, canoe sewing, and for mooring lines, respectively; braided whale sinew, for necklaces, fishing lines, and tool and weapon lashings; braided guanaco sinew, for bowstrings; whalebone, in sewing canoes and for bird snares and fishline nooses; seal-hide thongs, for tool and weapon lashings, harpoon lines, basket handles, mooring lines, and bowstrings. Awls were made of bone and wood, unhafted. The drill was lacking.

Basketry.—Four techniques in basket making were in use: (1) Simple half-hitch coiled, the commonest type (fig. 13, *top*); (2) twisted half-hitch coiled, rarer (fig. 13, *center*); (3) knotted half-hitch coiled, not common (fig. 13, *bottom*); (4) a sort of wrapped type. The first three were of excellent craftsmanship; the last, very crudely woven, and used only as a dip net for catching very small fish. The material for all four was a rush (*Juncus magellanicus*). The coiled baskets were more or less oblong-spheroid in shape, and had a carrying handle of thong or plaited rush (pl. 33, *c*).

Skin dressing.—No process of dressing proper is reported. Sealskins were stretched on the ground, covered with grass and moss, and left so for a while, to help dehair them. Drying frames were apparently used. The scraper consisted of a mussel shell lashed to a cylindrical stone haft. The *Yahgan* made thongs flexible by drawing them through their teeth or by chewing them.

Stoneworking.—Little use of worked stone was made except for arrowheads and, rarely, scrapers. The workmanship was crude. Archeologically, there are some traces of stone pecking and polishing (Lothrop, 1928, p. 203; cf. Bird, 1938).

Containers.—Cylindrical buckets (pl. 33, *e*), of *Nothofagus betuloides* bark, for carrying and holding drinking water and for bailing, were made by the woman, with the use of a barking tool dif-

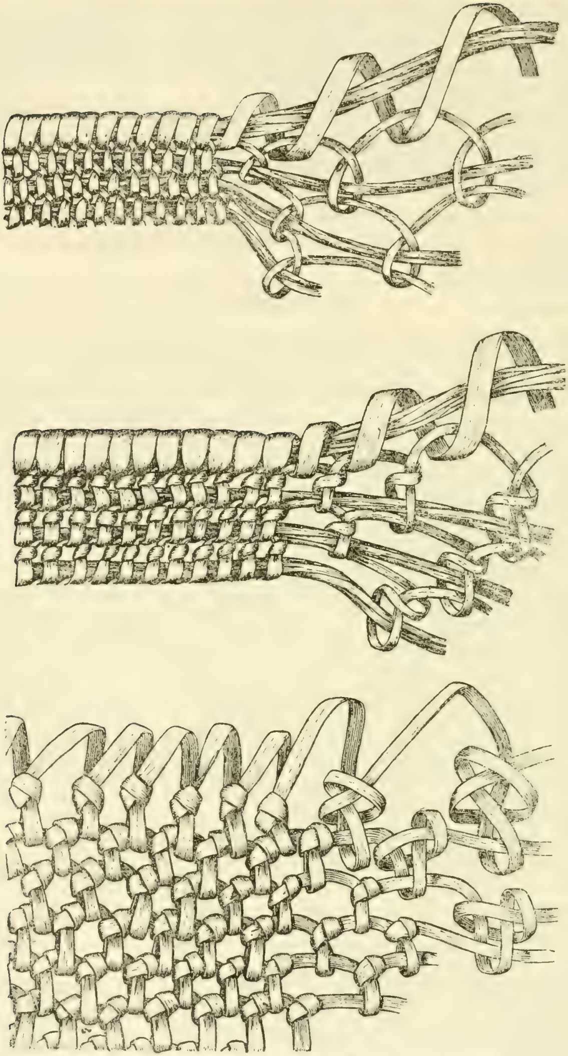

FIGURE 13.—Details of *Yahgan* coiled basketry. *Top:* Simple half-hitch coiling (height 1 in., or 2.5 cm.). *Center:* Twisted half-hitch coiling (height 1 in., or 2.5 cm.). *Bottom:* Knotted half-hitch coiling (height 2 in., or 5 cm.). (After Lothrop, 1928, figs. 61, 63, 65.)

ferent from the man's. Among other more used containers were: pouches of seal or penguin skin for holding small objects; bladders or windpipes of seals or porpoises for holding ocher and firestones; crops of geese and stomachs of seals for holding oil. (Cf. others in Lothrop, 1928, p. 133.)

Tools.—These have mostly been dealt with incidentally in the preceding sections. The hafted mussel-shell scraper, mentioned above under "Skin dressing," was also the common knife. Stone-headed daggers or knives were used by the earlier *Yahgan* (Cooper, 1917, p. 207). The stone celt or ax was lacking. Wedges were of bone; arrow polishers, of a bit of pumice.

Weapons.—The characteristic weapons used by the *Yahgan* both in hunting and in fighting were the spear and harpoon (fig. 11, *a–c*), the club, and the sling. The bow and arrow, in contrast to *Ona* usage, occupied a very subordinate position.

The spear shaft was quadrangular, hexagonal, octagonal, or decagonal in section, from 8 feet (2.5 m.) or less to 12 feet (4 m.) long; the shank, ordinarily of bone, with unilateral or bilateral single or serrate barbs and with notched tang, lashed to the split or slotted end of the shaft. The atlatl was absent. The harpoon, without toggle, was merely a spear with a detachable shank tied by a thong to the shaft. The club was a plain straight heavy stick. The cradle of the sling was of hide, the lines of braided whale gut.

Yahgan bows, arrows, and quivers closely resembled those of the *Ona*—a curved self bow, ranging from about 3 to 4 feet long, with string of seal hide or of braided seal, whale, or guanaco sinew; the arrow, without foreshaft, and with triangular stemmed and barbed head of stone, bone, or, more recently, glass; the quiver, rectangular, of skin, or tubular, of bark. Arrow poisoning was absent. Both archeological and ethnological evidence suggests that the *Yahgan* most likely acquired the bow and arrow after their arrival in their historic habitat, from the *Ona*. (Cf. Bird, 1938, pp. 261–263; Cooper, 1917, pp. 211–213.)

Fire making and illumination.—The only method of fire making was by percussion with flint and pyrites, bird down or dried fungus serving as tinder. Fire was carried around in the canoe on a hearth of earth, shell, or stones. Two-pronged tongs were in use. Bark torches provided illumination. Fire was employed not only for cooking, heating, and lighting, but also for signaling, straightening arrow and spear shafts, bending canoe ribs, felling trees, preparing bark for canoes and material for baskets, and other purposes.

SOCIAL AND POLITICAL LIFE

Marriage and the family.—The sexes were kept separate after about the age of 7 and were warned by their elders against sexual liberties. Intercourse between the unmarried was disapproved, but breaches of the code were not infrequent. Marriage between blood relatives, however distant, was in theory taboo; in practice, the prohibition included half-siblings, uncle and niece, aunt and nephew, first cousins, both parallel and cross, and seemingly extended somewhat beyond these limits. Since near relatives commonly lived near one another, marriages tended to be locally exogamous. Marriages with mates from far distant localities, especially outside one's own of the five dialectic groups, were disliked and infrequent. Marriage with a mother and her daughter was disapproved, but not so strongly as marriage with near blood-kin. Sponsors were barred from marrying their respective candidates of the čiéxaus[1] initiation rite.

Choice of mate was ordinarily free on the part both of the boy and of the girl, and appears to have been based largely on mutual affection and regard. Gifts from the groom to the bride's father were given and expected, as were also certain services before and after marriage. But a bride-price as stipulated by or haggled for by the father was absent. Bride capture or stealing, if it occurred, must have been very rare.

Boys and girls did not marry until they had passed through the required čiéxaus initiation. Gusinde (1937, p. 633) estimates the more common chronological ages of first marriages as about 17 to 19 years for boys, and 15 to 16 for girls.

Monogamy was by far the most prevalent form of marriage. Polyandry did not occur. Polygyny was permitted, but was uncommon. A few men had two wives, more commonly sisters; cases of three wives, if they occurred, must have been very rare. On the death of a man's wife, he had a certain marriage claim to her unmarried sister. On the death of a woman's husband, she frequently became, and under certain circumstances was expected or obliged to become, the wife of his oldest surviving brother, especially his unmarried brother, unless she married another man. This custom (the levirate) was, from the native point of view, primarily an obligation of the father's brother to be responsible for his nephews and nieces, a responsibility that lay on the uncle even though his brother's widow married another man. A surviving married brother was not entirely free to marry the widow, as his own wife might object.

The chief wedding rite consisted in painting the cheeks of the couple with three red parallel horizontal lines. These were worn and renewed for a week, during which time there were feasting and dancing, and at the end of which the couple went off together in their own canoe. Customarily, they remained with the bride's people for a few months, after which they would usually go for good to the groom's kin. Thus, localized groups of kin tended to be paternal.

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[1] *č* has the sound of English *ch*, *š* of English *sh*.

After marriage the husband's paternal uncle and the wife's maternal aunt took particular interest in them, superseding in large measure their respective parents. Children-in-law were expected to look after their parents-in-law in sickness or other needs. Children-in-law observed a number of avoidances regarding their parents-in-law: greeting their parents-in-law, speaking to them or breaking in on their conversation with remarks, looking at them, and sitting down beside them were all taboo. When in the same hut with their parents-in-law, they turned their sides or backs on them. A year or so after marriage, the restrictions between daughter-in-law and mother-in-law were partly, but never wholly, relaxed; those between son-in-law and father-in-law lasted through life. On visits of the father-in-law to his daughter, he and his son-in-law communicated wishes and news through the daughter and wife or by indirect discourse.

The man was, in theory, considered the head of the family, with authority to rule. Actually, his authority was very far from absolute, and the woman was largely her own mistress, particularly in such provinces of her own as child rearing, food gathering, and canoe managing. Some men domineered over their wives, but not a few husbands were under the thumbs of their spouses. Some husbands were cruel, but if so they ran afoul of the wife's kin. More generally, woman's position both in the family and in the community seemed a respected one, not that of a drudge, slave, or inferior being, and she enjoyed a fairly high degree of freedom and independence.

Adultery was disapproved by the *Yahgan* code, but apparently the code suffered appreciable infringement in practice. Adultery on the wife's part was, if discovered, punished by the husband with sound beatings, very rarely with death. Public opinion disapproved of her behavior. Adultery on the husband's part also gave rise to domestic battles in which the husband sometimes suffered severe treatment at his offended wife's hands. Jealousy on the part of both husband and wife was common. Wife lending was absent. There was no professional prostitution; a woman, married or unmarried, of markedly loose character was looked down upon.

Separation and divorce were fairly frequent, but were not lightly resorted to. The most common cause appears to have been cruel treatment of the wife by the husband, though there were other causes such as marked laziness, negligence, or crabbedness on the part of the wife. In case the wife became incapacitated through illness or age, the man could, and, it seems, more commonly did, take to himself a second wife. Desertion was more frequent on the man's part than on the woman's.

The aged were, according to all dependable evidence, usually respected, well treated, and well cared for. Neither abandonment or killing of the aged was ordinarily practiced but may have occurred in exceptional cases.

Political life.—Over and above the biological family there was no closely organized larger group or constituted authority. There were no sibs, secret or other societies, or social classes, and no chiefs or ruling group or caste of any kind. Each biological family was for most practical purposes a sovereign political unit. The sense of individual independence was deep. No man took or brooked orders or dictation from any other. However, aggressive individuals of personal force and strength, especially if they had powerful kin backing, at times dominated. Older men of recognized intelligence and integrity exercised considerable moral influence.

The next group to the biological family was the kinship group, mostly a paternal one. The members gave mutual aid where called for, particularly in feuds and in blood-revenge activities. The kinship group, owing to common patrilocal residence, was partly, but not fully localized.

The five regional divisions of the *Yahgan*, each with its distinctive dialect, had very slight political significance. Members of one division were usually chary of trespassing, at least for long, upon the territory of any other division, unless there were a recognized good cause, such as grave shortage of food, partaking of a stranded whale, trading, gathering canoe bark or fire-making materials.

Each of the five dialectic regions was broken up into local groups, each of which appears to have been composed, mostly at least, of members related by blood or marriage (Koppers, 1926 b, p. 5). Each such local group had its own territory—that of Ushuaia, for instance, occupied 20 miles (32 km.) of coast line on Beagle Channel—and its own name derived from its locality. Like the dialectic groups, these local groups had no chiefs. The local group's chief function was that of holding the čiéxaus initiation rite. The leader chosen therefor had authority only so long as the rite lasted. As the čiéxaus rite was an educational device contributing greatly to social conformity and solidarity, the local group's political function was chiefly an indirect pedagogical one. Loyalty to fellow members of a local group existed, but was not as strong as that to one's own kinship group.

There was no organized process of judicial procedure. In case of murder, the victim's kin took blood revenge on the murderer or his kin, or settled with him or them by composition. At times such kinship feuds led to a sort of pitched battle, in which slings, clubs, fists, and so forth were used freely, with no holds barred, but grave wounds or deaths were uncommon. Organized warfare did not exist, and the *Yahgan* had no defensive weapons. The weapons used in their feuds were primarily made for, and adapted to, hunting.

Social relations within and between the dialectic and local groups appear to have been normally irenic, but violence and bloodshed were not infrequent. The friends of fighting parties usually intervened, both by persuasion and by force, to restore peace. A murder was strongly condemned, and the murderer often became an outcast. Bridges found 22 cases of homicide between 1871 and 1884—an annual rate per population something like 10 times as high as that of the United States. Mercy killings occurred for the purpose of putting an end to the sufferings of the hopelessly ill. Human sacrifice was unknown; so too was premeditated suicide.

The evidence that the *Yahgan* practiced no form of cannibalism—gastronomic, famine, ritual, or other—is convincing beyond all reasonable doubt. They would not even eat animals suspected of devouring human flesh.

ECONOMIC LIFE

Ownership.—The *Yahgan* resented and avenged exploitative trespass upon their tribal territory or attempted occupation of any part thereof by non-*Yahgan*, Indian or White. So, too, did members of any one of the five dialectic groups (Gusinde, 1937, pp. 964–965) or, according to Koppers (1928 b, p. 176), of any one of the numerous local groups, by nonmembers. Since these local groups seemingly were chiefly kinship groups (cf. supra, Political Life), the *Yahgan* land-tenure system resembled the family-hunting-ground system. There was no exclusive tenure by kinship circles as such, by biological families, or by individuals.

Members of one dialectic or local group could, however, exploit the territory of other groups to secure food in grave shortage, to feast on a stranded whale, and to gather firestones and suitable canoe bark, which were found only in certain parts of the *Yahgan* territory. Ownership of personal property, such as weapons, clothing, adornments, and baskets, was vested in the individual. Women and children, as well as men, had well-recognized rights to such things. The ownership of certain other things—food, hut, canoe—appears to have been vested in the biological family.

Food was looked upon as the property and gift of the Supreme Being; wasting it was disrespectful to Him.

Title to personal property was acquired through occupation, labor, donation, and barter. Barter took two forms: plain, or exchange of goods for goods; and by exchange of presents. There was no currency of any kind, and no weights or measures. Barter was carried on among the *Yahgan* themselves, with the *Ona* and *Alacaluf*, and with the Whites. Barter by exchange of presents was common; a gift was made, regardless often of the wishes of the recipient, who could not refuse it without affronting the giver, and who was definitely expected to give something in return.

Inheritance played a very minor role. Much or most of the deceased's property was burnt with the body. The person's dog fell to the oldest son or other near relative or acquaintance. Some of the more valuable or useful property might be bartered or given away to distant persons. Such burning, bartering, and giving away were intended to take from sight what would cause sorrow to the surviviors by reminding them of the beloved departed, and to signify the survivors' desire not to profit by the death.

Stealing was considered decidedly reprehensible; but thefts actually occurred, even among their own people, not as daily matters, so to speak, but it would seem, not very uncommonly. A habitual thief, who failed to reform, was in the end boycotted—a severe punishment under *Yahgan* living conditions.

Generous sharing of food with kin and friends was the rule. Hospitality was extended as a matter of course.

Labor.—Neither wage nor slave labor existed. There was a little, but not much, labor in common. Each family was a relatively independent economic unit. The division of labor was almost exclusively a sexual one, with no organized or unorganized craftsmen making their living by specialized trades.

The man's task was to hunt marine mammals, otter, guanaco, and birds, to make his own weapons, to build and repair the canoe, to do the harder work in hut building. The woman's task was to care for the younger children, to cook, tend the fire and look after the hut generally, to paddle and have general management of the canoe in which the family spent so much of its time, to do all the skinwork and leatherwork, such as preparing skins, sewing clothing, and making skin bags and pouches, to make baskets, and, last but not least, to collect mussels, much of the fish and other sea food, eggs, fungi, and berries. Since mussels were the chief food resource, the woman's part as provider was an extremely important one.

Probably her crucial role as food provider had a good deal to do with her relatively high status in *Yahgan* society. Certain tasks fell to man and woman jointly, such as building the hut, and hunting from the canoe, when the man did the killing while the woman maneuvered the craft. All in all, if we take into account *Yahgan* living conditions, although the list of women's tasks is longer than that of the men's, actually the sexual division of labor appears to have been a fairly equitable one.

Nearly all work was done for hand-to-mouth existence. There was little concern for the future, and practically none for amassing wealth.

ETIQUETTE

Intimate friends, men or women, on meeting greeted each other with vigorous hugs and with wordless vocalizations of joy. When a guest entered a hut, he crouched by the fire without manifesting curiosity; only after a while did he begin to talk and give the news, during which time he was not interrupted. Hospitality was generously given, especially to kin and friends. The guest did not verbally express his thanks for the food received. If he were from a distant place, his host presented him with some gifts on his departure. A person leaving the hut of a friend used the expression: "I will go."

On paying a visit it was proper, especially for women and children, to paint the face with a red or white streak or paint up otherwise. A graduate from the čiéxaus initiation rite on approaching his sponsor was expected to paint himself or herself; to go without such painting was disrespectful. It was bad form to show too much eagerness in eating; a gluttonous eater was looked down upon. Belching and expectorating in the presence of others was not disapproved. Natural needs were attended to at a good distance from the hut.

When several families came together to camp, the respective sexes kept more or less to themselves. A man would not enter a hut where a woman was inside alone, and vice versa.

It was very bad form to summon or address a person, even a child, by his or her own name. In conversation the names of others were not mentioned, roundabout descriptive phrases being used instead. The *Yahgan* had no expressions corresponding to our cursing or profanity.

The foregoing were some of the more significant rules of *Yahgan* etiquette, details of which are given at length by Gusinde (1937, pp. 1006–1018).

WARFARE AND CANNIBALISM

These have been dealt with supra under Social and Political Life.

LIFE CYCLE

Childbirth and infancy.—There was clear awareness of the dependence of conception on coitus. Desire for children was marked. In some cases abortion—by mechanical, not medicinal, means—was resorted to by unmarried mothers. A badly deformed or defective newborn infant was allowed to die through neglect. Delivery took place inside the hut, the father going outside and leaving the mother with women assistants. Very shortly after birth, the mother bathed herself and the infant in the sea, and the mother usually took sea baths for some days thereafter. For some time before and after a child's birth the mother and father observed certain food and other taboos. A form of couvade obtained, especially in the case of a first child, the father remaining quiet in the tent and abstaining from most work for some days while relatives and friends supplied the family with necessities. The placenta was burned; the navel cord, dried and kept.

Marital relations were avoided for about 6 weeks or more after delivery. Weaning ordinarily took place after 10 to 15 months, but in some cases not until a good deal later. The child was commonly named after its birthplace.

Education.—Corporal punishment was rare. Severer correction was ordinarily verbal, or else took the form of sending the child out of the hut for the day. A great deal of moralizing counsel was given the growing child by elders, counsel not always received with eager alertness by him, to judge from one of the instructions stressed in the initiation rite; viz, to listen attentively to what his elders told him even when the sermon was long drawn out. The sexes were kept separated after about the 7th year.

Girls' puberty observances.—At her first menses, the girl fasted, eating little or nothing, for 3 days. Both cheeks from the eyes down were painted with red radiating streaks. Older women gave her much moral counsel. On the 8th or 10th day she bathed and washed in the sea. At the end, a feast was given to all the members of the group.

The čiéxaus initiation rite.—This rite (Koppers, 1924, pp. 45–95; Gusinde, 1937, pp. 805–961), for both boys and girls together, and actively participated in by all their elders who had previously been initiated, was the most important native ceremony, the focal point, in a sense, of their religious life, a dynamic stay of social order and solidarity. It was likewise an intensive training course, constituting the climactic event in the native educational system.

This initiation rite, the čiéxaus, under the auspices, it seems, of the local group, rather than of the dialectic division or whole *Yahgan* tribe, was held not at stated seasons or intervals, but as need or occasion arose, yearly or more or less often than yearly. It could last from several days to several months. The candidates were boys and girls who had reached puberty.

The chosen officers in charge of the rite were a leader, a mentor, and guards. A special large hut, of oval beehive or conical construction, was used, with simple decorations in the way of red, white, and black painting on the framework inside and similarly painted oblong boards hung up. Each participant wore a special diademlike feather head band and had a special painted staff. To each candidate were assigned sponsors, one or two men and a woman to the boy, one or two women and a man to the girl.

The candidates were subjected to certain endurance restrictions: little sleep, food, and drink, hard work, a daily bath in cold sea water, cross-legged posture during much of the time. They had to drink through a hollow bird bone. The boys were given a sort of temporary tattoo. Much vocational instruction was given, and particularly an elaborate moral instruction in the native code, with very concrete counsels on the obligations of altruistic behavior, respect for the aged, peaceableness, industry, not spreading scandals or carrying tales, and so forth. This moral instruction was given by the mentor, sponsors, and other elders, as the will of Watauinéwa, the Supreme Being, who saw everything and who would punish delinquents with shortened life and with the death of their children. Yetāita also, the chief evil spirit, would harm them if they did wrong.

The ritual consisted otherwise mostly of dances and of songs peculiar to it. Toward the end, the sponsors gave each candidate a basket, a bird-bone drinking tube, and a scratching-stick. The rite ended with a mock battle between the men and women, and with a feast.

Only those who had gone through the čiéxaus rite were considered full-fledged members of the tribe, and were told the whole mythological complex of the Yoā́lox brothers and their sister. And only twice-initiated boys could take part in the kina rite (cf. infra under Religion), whith was often held just after the čiéxaus.

Death and burial.—Mourning was expressed by fasting, body painting, gashing of the breast with sharp stones, and a special mourning dirge accompanied by a mourning speech. Angry complaints were directed to Watauinéwa for letting the person die. A general mourning rite in which the men and women painted themselves, wept, hurled complaints at Watauinéwa, and engaged in a mock battle, the men with clubs and the women with paddles, was also held.

The more common form of disposal of the body, up until recent times, was cremation—lest foxes, rats, or dogs should eat the body, so the natives said. The dead person's personal property, or some of it, was burned with the body. In some cases, especially of children, the body was buried in a kitchen-midden. The burial spot was avoided as a camping place, for several years where the deceased was an adult. The name of the dead was never spoken.

Future life.—The koshpik (kḗspix), or soul, flew east, but exactly whither was not known. Nor was it known what its fate was, happy or unhappy, nor whether such fate was at all dependent on moral behavior on earth.

ESTHETIC AND RECREATIONAL ACTIVITIES

A great deal of *Yahgan* recreation was incidental to the initiation and other rites and through the feasting and social activities that accompanied set events such as marriages, or chance meetings of families at camps, or larger gatherings of longer duration occasioned by treasure trove in the shape of stranded whale. In connection with some of even the more solemn rites there were intervals of free play releasing tensions developed during the more serious phases of the rites.

Narcotics were totally lacking. No alcoholic or other intoxicating beverages were made or used by the *Yahgan* before their contact with the Whites. Nor was tobacco grown or in any form used.

Art.—There was no form of sculpture or of carving in wood. The only designs, if they can be called such, were the lines, dots, and circles used in face and body painting and in the ornamentation of lodges and paraphernalia in connection with the major rites (fig. 14). There was a certain crude artistry in bodily decorations and in the personal adornments referred to elsewhere in the present paper.

All in all, there are few if any peoples in the world that possessed a more rudimentary esthetic development than the *Yahgan* and their neighbors, the *Alacaluf* and *Ona*.

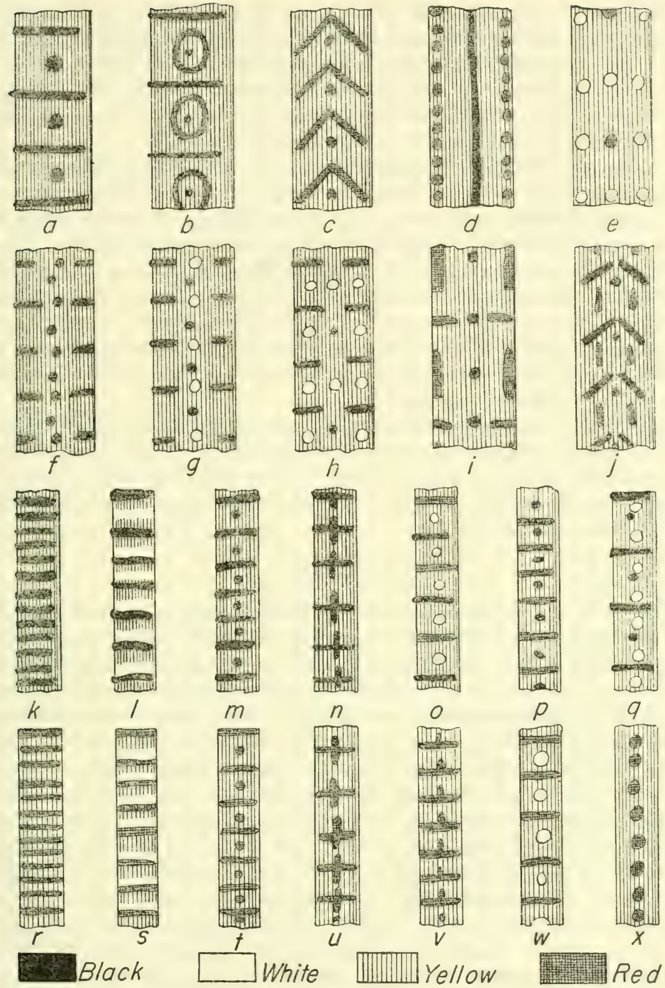
Games and sports.—There was no gambling, no games with elaborate rules, no team games unless group wrestling could be called such, and no competitive games except wrestling.

Boys practiced with the spear, bow and arrow, and sling, and at stone throwing, but this was as much vocational as recreative activity.

There were certain quite simple children's play activities, such as swinging, rolling down hillocks, endurance hopping on one foot, and group play such as tcenalṓra, in which boys and girls crouched in a line one behind the other, sang together a melody in which the meaningless word "tcenalṓra" was repeated, and slowly danced rocking back and forth in imitation of a canoe making its way forward through the waves. Songs sung on one long meaningless word were common accompaniments of children's group play.

All the women could swim; the men could not. Recreative swimming was rarely indulged in.

Adults' games, in some of which the children could participate, were equally simple. Such were: blindman's-buff, hopping and singing at the same time, throwing small burning sticks in the air, standing in a circle through which "it" in the middle tried to break. The ball game was popular: A ball made of seal gut stuffed with feathers or grass was kept in the air by the players with strokes from the palm of the hand. Men and women might play the ball game together.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Yellow
Red

FIGURE 14.—*Yahgan* decorative patterns. From the painted frame of a ceremonial lodge. (Redrawn from Lothrop, 1928, pl. 9.)

Wrestling was indulged in a good deal, mostly by the men, although the women would sometimes intervene in the group wrestling. In pair wrestling, a man challenged an opponent by putting a small ball at his feet. The onlookers formed a circle around the contestants and applauded vigorously. The aim was to put the opponent on his back.

The loser would call upon a friend who would in turn challenge the victor who had no choice but to accept. Before the wrestling match began the wrestlers were magically massaged by the medicine man. Sometimes these single matches developed into a free-for-all wrestling match in which several or all of the men would join. Sometimes, too, these general wrestling bouts ended in a serious scuffle.

Music.—Proverbs were absent. So, too, was poetry; the nearest approach to it was the meaningless words or syllables having a certain rhythm which occur in songs. The songs themselves were extremely simple and monotonous with or without meaningless words. The *Yahgan* had many songs, sung for special occasions such as the čiéxaus and mourning rites; others intoned ad libitum. There were no lullabies. *Yahgan* songs show sundry very primitive features, according to von Hornbostel (1936). There were no musical instruments at all. Even the rattle, drum, and flute were absent. Staves with which to beat time were used in certain rites.

Dances.—Apart from the dances carried out during the chiéxaus and kina rites, there were none of a symbolic, imitative, or dramatic type, and no war or hunting dances. The *Yahgan* danced alone, in circles or in Indian file. The women rarely danced, and the men and women never together.

RELIGION

Most of the religious life of the *Yahgan* centered around theism and shamanism. There was a distinct fear of the dead; there were also the mourning observances previously noted; the souls of dead shamans entered into the beliefs and practices of the medicine men. But no organized ancestral cult existed, and the dead were not prayed to. Animistic beings and observances appeared marginal to the theistic cult and focal in shamanism. There were a number of miscellaneous magico-religious conceptions and observations. Each *Yahgan* had a yefā́čel, as a sort of guardian spirit. Various omens were believed in: for instance, the call of the owl was supposed to portend a murder or at least a death. A number, too, of taboos were observed: for instance, when traveling by canoe people had to throw waste into the fire kept burning in the canoe, and not into the water, lest the children should cry. There does not appear to have been any form of divination. The kina rite, to be described, had religious features to it, but its purpose and function were primarily social. The great bulk, therefore, of *Yahgan* religion having been taken up with theism and shamanism, in summarizing *Yahgan* theistic and shamanistic phenomena, we shall be summarizing *Yahgan* religion as such.

Theism.—There was a very definite belief in a Supreme Being called Watauinéwa or Watauinéiwa, who was also called by other names meaning "The Powerful One," "The Highest One," and especially by the name of "My Father." He was not the maker or creator, but rather the master and ruler. He was the owner and giver of animals and plant food. It was he who gave life to human beings, and who took it away. He was fundamentally good and benevolent. He lived above in the heavens. He had no body nor had he wife or children. He was distinctly and eminently set off against and above all other spirits, good and bad, and in this sense stood as it were alone. He did not enter into the tribal folklore and mythology. He saw what human beings did, and upon those who broke the precepts of the *Yahgan* socio-moral code, which represented his will, he inflicted punishment in the way of early death, and often the death of their children.

The central role of Watauinéwa in the initiation rites has previously been mentioned. Apart, however, from these rites, Watauinéwa was prayed to a great deal by the individual *Yahgan*. These prayers were mostly petitions to him for food (as the owner of the food animals and plants), for cure and health, and for protection from the elements, as well as expressions of thankfulness. A good many of them were more or less traditionally crystallized formulae, of a few words each, but prayer was likewise expressed in free wording. A quite distinctive feature of *Yahgan* communication with the Supreme Being was the frequency of complaint expressions and charges directed toward him on the occasion of sickness, bad weather, or other evil fortune, and particularly on the occasion of deaths. Gusinde and Koppers collected over 60 of these various kinds of prayer formulae. Some of them are in somewhat archaic language.

In view of these archaisms in the complex, of the many distinctly native features (e. g., master, owner, not creator or maker), of the absence of all characteristically European or Christian conceptions, and of the express and emphatic statements by the natives whose memories or whose knowledge from their elders reached back to premissionary days, there can be no reasonable question but that *Yahgan* theism is aboriginal, and not the result of missionary influence. It seems equally clear that it was central in the religious outlook of the *Yahgan* and that it entered deeply and dynamically in their thoughts, emotional life, and personal behavior.

Shamanism.—A person became a medicine man (yékamush) through an inner call manifested to him in dreams and visions. The héshteka-yékamush, dwarfish spirits, appeared to him; a female spirit, a Haučéllakīpa, also played an important part in shamanism, as the shaman's helper. Through the dreams and visions the future medicine man learned which of the small spirits was to be his yefáčel, or particular guardian spirit. From this spirit he also received a song.

He was trained in his professional duties by an older shaman. There was also held a shamans' institute and feast, which could last several months, to condition and school young candidates. During it, the candidates were secluded, and were required to fast, to sing much, to maintain a certain posture, to go with little sleep, and to drink water only through a hollow bird bone; and were taught healing techniques, tricks of the trade, and so forth. Women were barred from this shamans' school. Shamans were not banded into an organized society.

A full-fledged shaman, besides getting help from his special guardian spirit, was also in close touch with the spirit of a deceased shaman. The shaman's relations were with the world of lesser spirits, not with the Supreme Being, Watauinéwa; and the latter did not figure in the shamans' school.

The shaman's chief function was that of curing the sick, but he also influenced weather, helped in hunting, prognosticated, and so forth. The familiar procedures of massage, friction, and anointing, with the extraction of some object supposed to be the immediate cause of the disease, were used in curing. Such objects were often believed to have been sent by malevolent shamans from whose power the good shaman endeavored to deliver the victim. An evil shaman could steal and keep in his possession the soul of a victim, and the victim would die unless his soul were freed by another shaman. It was also the function of the shaman to assign to each infant as soon after birth as possible its own yefā́čel, a male one to the male infant and a female one to the female. It was the primary and most important duty of the yefā́čel to protect its charge against sickness and bodily harm and against dangers of all kind.

Kina rite.—This *Yahgan* institution, with its numerous analogies to the yinchihaua of the *Alacaluf* (p. 76) and with the klóketen of the *Ona* (p. 120), could have been properly discussed under Social Culture because it had primarily a social function. But it is treated here because it also had important religious or pseudo-religious features and was largely under the direction of the shamans. In fact only a shaman could be the leader of the kina rite. Back of the kina rite was a long myth of an earlier time when the women held mastery of the tribe and lorded it over the men. To maintain their supremacy the women used masks to impersonate spirits and to hoodwink the men. Finally, one man discovered the deception, told the other men, and overthrew the women, killing all females except one very young child. In the kina rite only men who had passed twice through the čiéxaus rite could take part. Women were kept away from the large conical tent. The men secretly painted themselves and wore conical or conoidal masks (pl. 33, *d*) of bark or sealskin to impersonate a very great number of spirits (pl. 33, *a*). So decked out, they sang and danced in the sight of the women and children and threatened the women with dire penalties if they did not remain submissive to the will of the men.

MYTHOLOGY

Full details on the cosmogony and mythology of the *Yahgan* have been presented by Gusinde (1937, pp. 1139–1277), with further information on certain of the more important folklore beings (1937, pp. 1278–1294). Perhaps the most important single phase of the mythology is the Yoálox cycle. The elder of the two Yoálox brothers was stupid, the younger, clever. The younger is in a general sense the culture hero. He is not a trickster. The cosmogonic myths include a flood story. There are a great many explanatory tales of the cormorant, the otter, the fox, and so forth. A number of other stories were told with the moral purpose of instructing and warning the young. Certain others concern the medicine man. The long story of the earlier matriarchate was briefly summarized supra under Kina rite with which it was associated, just as the Yoálox cycle was more or less associated with the čiéxaus. The chief folklore beings believed in, but to whom no cult was given, were the dreaded cannibal beings, the Lakúma water spirits, and the Hánnush giants.

LORE AND LEARNING

In general, *Yahgan* technology, with the exception of the bark canoe and coiled basketry, gives little indication of inventive strivings. Thus they stand in sharp contrast with their Arctic counterparts, the Eskimo. A comparison for instance between the very simple *Yahgan* harpoons and the very elaborate Eskimo ones shows the sharpest contrast. In this respect *Yahgan* culture resembles more closely the culture of the northern *Athabaskan* and northern *Algonquians* of sub-Arctic America.

There were no weights and measures of any kind. There were no means of communication such as knotted cords, notched sticks, or, so far as our records go, of travelers' signs, such as the inclined stick to show direction of journey. Smoke signals were made by putting branches of *Nothofagus betuloides* on the fire and, when the dense smoke had risen about 16 feet (5 m.) high, quickly extinguishing the fire, allowing a balloonlike cloud of smoke to ascend. One such smoke signal signified sickness or an accident; two, a grave emergency; three, a death; four, the discovery of a stranded whale.

The day was divided into periods of about 4 hours each. The year was divided into four seasons corresponding roughly to our own, and also into eight divisions: "the time when the bark is loose," "when the first bird eggs were found," and so forth.

There was almost nothing in the way of herbal curatives, unless the chewing of the leaves of *Drimys winteri* as a purgative and for cardiac and stomach pains could be considered such. Sap from the broken end of a beech branch was swallowed for certain ailments. Other simple remedial measures employed were drinking oil, rubbing the body with it, massaging with *Drimys winteri* leaves, drinking sea water, covering with robes and sweating near the fire. Chalk dust was smeared on for skin eruptions. To cure headache, the nasal passages were scratched to bring about nosebleed.

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THE ONA

By John M. Cooper

NATURAL ENVIRONMENT

The large island of Tierra del Fuego, the habitat of the *Ona*, is roughly triangular in form, about 240 miles east to west on its southern coast, and about 170 miles north to south from apex to base. The northern and eastern sections of the island are low-lying rolling prairie country; the southern and western parts are mountainous. Climate approximates closely that of the country of the *Yahgan* (p. 81); so, too, does the flora of the forested section of the island. The open plains section to the north and east is covered with only grass and bushes. South of the Río Grande and Río del Fuego small clumps of trees appear and gradually increase in size, height, and area until they become solid forest. The land animals most exploited by the *Ona* are the guanaco (*Lama glama guanicoe*), the fox (*Dusicyon culpaeus lycoides*: Cabrera and Yepes, 1940, p. 127), and the tuco tuco or cururo (*Ctenomys magellanicus fueginus*). The puma and rhea of Patagonia are not found on Tierra del Fuego Island. The *Ona* were primarily hunters of land mammals, above all of the guanaco, and were distinctly a land people, whence their common name, "Foot Indians," as distinguished from the "Canoe Indians," viz, the *Yahgan* and *Alacaluf*.

TERRITORY

The *Ona* occupied the whole of the island of Tierra del Fuego (map 1, *No. 1A;* map 2), except the shores of Useless Bay and Admiralty Sound, which, intermittently at least, were frequented by the *Alacaluf*, and the strip of land between Beagle Channel and the mountain range paralleling it, which was inhabited by the *Yahgan*. The *Ona* were in contact with the *Alacaluf* in the western part of the island, probably crossing at times to Dawson Island. They were likewise in contact with the *Yahgan* between Beagle Channel and Good Success Bay, trading and intermarrying to a certain extent with them. There is also some good evidence that, in spite of their reported lack of watercraft, the far northern *Ona* were in sporadic touch with the *Tehuelche* of the mainland. (Cf. Patagonian and Pampean Hunters, Tribes, p. 131.)

TRIBAL DIVISIONS

The name *Ona* (*O'ona*, *Aona*, *Aoniks*, *Oens*) is the one by which they were known to the *Yahgan*, and probably means in *Yahgan* "north" (Cooper, 1917, p. 48). Although this is not the name by which the *Ona* call themselves, we use it in the present paper in view of its long acclimatization in anthropological literature. Furthermore, there appears to be no *Ona* name for all divisions of the *Ona* (pl. 38, *top*, *left*).

The *Ona* were divided into two main groups who called themselves respectively *Haush* and *Shelknam*. The *Haush* (*Haus* and other variants), who also called themselves *Mánekenkn* (*Manckenkn* and other variants), occupied the Peninsula Mitre at the extreme southeastern corner of Tierra del Fuego Island. They may earlier have occupied a larger territory and may represent an earlier migration from the Patagonian mainland. They were distinct dialectically and to a certain degree culturally from the *Shelknam*. The *Shelknam* (*Selk'nam* and many variants) were divided into a northern and a southern group. The northern group occupied the treeless prairies north of the Río del Fuego and Río Grande; the southern group, the parkland and forest region south of this line. The two groups differed somewhat both dialectically and culturally and were not on the best of terms.

Throughout the present paper we shall use the term *Ona* to include both the *Haush* and the *Shelknam*; the terms *Haush*, *Shelknam*, *Northern Shelknam*, and *Southern Shelknam* to denote these respective divisions and subdivisions.

LANGUAGE

A *Shelknam* could understand a *Haush* but only with a good deal of difficulty. The dialects of the *Northern* and *Southern Shelknam* differed very slightly. In contrast to *Yahgan*, *Ona* is characterized by explosives and gutturals. *Ona* is rather closely related to *Tehuelche*, with which it forms the *Tshon* family.

POPULATION

Earlier estimates from the last quarter of the last century put the *Ona* population at about 2,000. From the eighties on, the scant records show a sharp decrease. Around 1910 there were about 300 survivors; in 1919, 279; in the middle twenties, well under 100; at present, probably well under 50. In 1919–23 the only surviving *Haush* were two old women (Gusinde, 1939, p. 6); in 1926, Tonelli (1926, p. 8) knew of only one living *Haush*.

The factors responsible for this decrease were many. Gold seekers and sheep ranchers invaded *Ona* territory around the early eighties of the last century. These movements led to a bitter campaign on the part of the Whites to exterminate the *Ona*. Feuds among the *Ona* themselves took their toll of lives. Respiratory diseases and epidemics of smallpox and measles also played their part. European clothing, food, shelter, and work habits contributed, as among the *Yahgan*.

HISTORY OF INVESTIGATION

The *Ona* were first seen by Sarmiento in 1580; later, by the Nodals in 1619, by perhaps one of L'Hermite's officers in 1624, by Labbe in 1711, by members of the first and second Cook expeditions in 1769 and 1774, and by several other voyagers in the early 19th century. These observers, however, left very meager records. The real study of the *Ona* dates from 1875, when they were first encountered by Thomas Bridges. Important progress was made in the fields of *Ona* culture and language only after the beginning of the present century, thanks above all to Lucas and William Bridges, sons of Thomas Bridges; to the Salesian fathers, especially Zenone and Borgatello; and to the field studies of Gusinde in 1919–23 and of Lothrop in 1924–25.

The more important first-hand sources on the *Ona* from 1580 to 1917 are: Banks (1896); Barclay (1904); Beauvoir (1915); Bollettino Salesiano (1877–); Cojazzi (1911); Dabbene (1911); Fúrlong C. (1910, 1917 b); Gallardo (1910); Lehmann-Nitsche (1913). The data given by Barclay, Dabbene, and Gallardo were almost entirely, and those by Fúrlong largely, from the Bridges brothers. The anthropological information from the above and the other earlier sources were assembled in Cooper (1917). The most important sources since 1917 are: Borgatello (1924) and Tonelli (1926), for general culture, from the Salesian contacts; Lothrop (1928), especially for technology, from field studies; Gusinde (1931), for his exhaustive treatment of the whole range of *Ona* culture, and especially the social and religious phases thereof, from his own extensive and intensive field studies and from a thorough critical gleaning of the literature.

Gusinde's large monograph, "Die Selk'nam" (1931), contains practically all that we know of *Ona* culture. Where this basic work is not accessible, the following more important papers may be consulted: Gusinde (1923–24, 1924, 1925 a, 1925 b, 1925 c, 1926 a, 1926 b, 1926 c, 1927, 1928 a, 1928 b, 1929).

CULTURE

SUBSISTENCE ACTIVITIES

The *Ona* practiced domestication neither of plants nor of animals. Dogs are reported among the *Ona*, probably *Haush*, of Good Success Bay as early as 1769, by members of the first Cook expedition.

Lothrop's rating (1928, p. 32) of the relative importance to the *Ona* of the foods they used is as follows: (1) Guanaco, by far the most important; (2) of much less importance, foxes, eels, geese (4 kinds); (3) next, mussels and cormorants; (4) last and least, tuco tucos, seals (4 kinds), whales, limpets, crabs, ducks (5 kinds), fungi (several kinds), berries (3 kinds), grass seeds. According to Gusinde (1931, p. 125), the tuco tuco was more important than the guanaco for the *Northern Shelknam;* the guanaco more important for the *Southern Shelknam.* The *Ona* prepared a flour from the seeds of tay (*Descurainea canescens*); the seeds were ground with two unworked stones as mortar and mano, and the flour was mixed with water or grease. Salt was not used. Dogs were never eaten, and the flesh of foxes was ordinarily avoided.

Hunting.—The guanaco was hunted with the bow and arrow. The killer of a fox made an apologetic speech to the dead animal to propitiate the whole fox world and to ensure good fortune in future fox hunting (Gusinde, 1931, p. 280). Dogs were very important in fox hunting as well as in guanaco hunting. Tuco tucos were dug up and killed with a pointed stake or short spear. Birds were taken with single- or multiple-noose snares, with the pole snare and by torchlight, as among the *Yahgan.* Apart from these snares no other forms of trap or pitfalls are reported. Seals were sometimes taken with seal-hide nets.

Fishing.—Fish were speared in shallow water with a short bone-headed spear. They were also taken with nets made of sinew and in weirs made of branches or stakes. A fishhook of a dorsal fin tied to a bit of whalebone was earlier reported by Wilkes at Good Success Bay (1844, 1:118).

Food preparation and storage.—Dried meat and fungi were stored.

Meat was cooked on a spit or over the coals. Heated stones were used for warming and roasting seeds of tay. The only foods eaten raw were guanaco fat, fungi, and wild fruit.

SHELTERS

The two chief forms of shelter were the windbreak and the conical hut, the former the more common one among the *Northern Shelknam,* the latter the ordinary one among the *Southern Shelknam* (Gusinde, 1931, p. 126). The windbreak consisted of guanaco hides sewn together and painted red and attached to a few poles stuck in the ground in a curve or semicircle and inclined toward the center (pl. 37, *bottom*); it thus formed a fencing without a roof, but in bad weather could be nearly closed over. Sometimes the skins were merely pegged with thorns or lashed to standing trees. The conical tipi with a framework of stout sapling trunks, about 10 feet (3 m.) high, was covered with branches or other material. The material for such a framework was at hand in the parkland and forested habitat of the *Southern Shelknam.* In both types of shelter the floor was often scooped out and branches strewn on it.

Considerably larger conical lodges covered with sods were set up for ceremonial purposes (cf. p. 120).

DRESS AND ORNAMENTS

Clothing.—The chief garment of both men and women was a long cape, reaching from over the shoulders to the feet or ankles (the woman's cape a little shorter), about 5 feet (1.5 m.) square, the skin side coated with mixed red paint and grease or saliva, worn with the fur outside. Men simply held the garment together or let it fall; the woman's garment was tied on with thongs at the breast. Among the *Southern Shelknam* the mantle was usually of guanaco skins; among the *Northern Shelknam* it was commonly of tuco tuco skins. Among both the fox-skin mantle was prized. Moccasins made from guanaco-foreleg skin were worn, fur outside, and stuffed inside with grass (fig. 15). Leggings of guanaco skin were used in heavy snow.

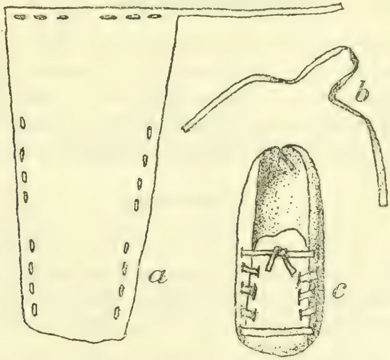

Figure 15.—Pattern of *Ona* moccasin. (After Lothrop, 1928, fig. 8.)

In travel over light deep new-fallen snow a small bundle of thick bushy twigs was tied to the moccasin to keep the wearer from sinking; the contrivance was called xóše ke xámni, "snow shoe" (Gusinde, 1931, p. 215).

Ona men wore a triangular peak or head band over the forehead, made of guanaco fur. *Ona* women wore under the cape two other garments: an undergarment of guanaco skin reaching from the armpit to the knee, with the fur inside, and tied at the waist with a thong; and a small triangular pubic covering like that of the *Yahgan.*

Ornaments.—The hair was worn loose, not in braids, and was often banged. The top of the head was shaved in mourning. Combs were made of wood or whalebone or were merely the jawbone of a porpoise or otter. Depilation of facial and bodily hair with two mussel shells was practiced by both sexes.

Scarification was resorted to as a mourning rite. Puncture tattooing on the arm or forearm with charcoal was common to both sexes. Head deformation, and ear, lip, and septum piercing were absent.

Smearing the head and body with grease served protective as well as decorative purposes. Face and body painting was common; besides the three colors, red, black, and white, used by the *Yahgan,* the *Ona* used blue, green, yellow, and slate. Body painting was also used for camouflage coloration in the chase.

The chief personal adornments were: necklaces of braided guanaco sinew, plain or strung with bone beads; anklets and wristlets of braided sinew and of plaited grass. Feather armlets were worn during foot races. Finger, ear, and nose adornments were absent.

TRANSPORTATION

There is good ground for holding that the *Ona* on rare occasions ventured out on the water, but there is no evidence whatsoever on the kind of watercraft they used or whether it was their own. In traveling afoot, the women used a tumpline of thongs, passing across the chest, for carrying household impedimenta, and often used a walking stick.

MANUFACTURES

Pottery and weaving were absent; and no sherds have been found in any of the few archeological investigations in *Ona* territory.

String-making and sewing.—Sinew twisting and plaiting was common. For sewing skins or bark, an eyeless bone needle or awl was used.

Basketry.—The *Southern Shelkham* and probably the *Haush* made half-hitch coiled baskets with foundation quite similar to the commonest *Yahgan* type (p. 89).

Skin dressing.—Skins were dried by stretching them taut with flexible cross sticks or by staking them to the ground. They were cleaned with a flesher in which the stone or glass blade was set at an angle to the handle (fig. 16, *c*). Some of the scrapers revealed archeologically may have been used without a handle. The skins were taken

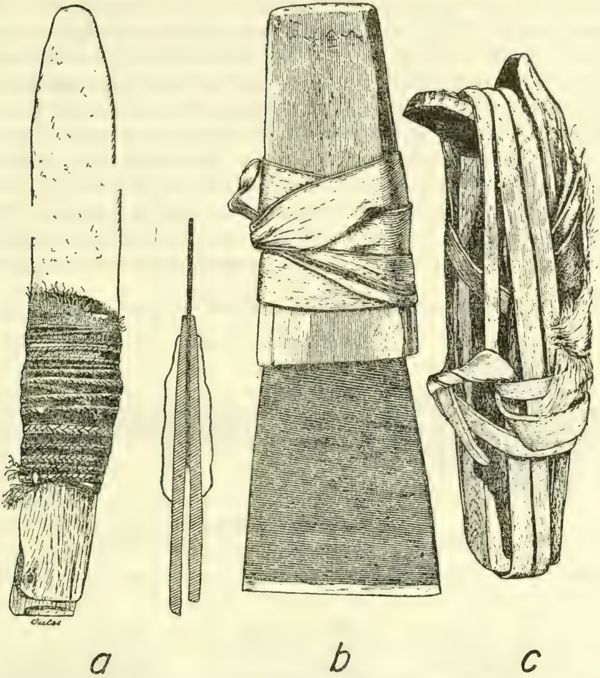

FIGURE 16.—*Ona* implements. *a, Ona* knife with schematic cross section, length 8⅝ in., or 22 cm. (after Outes, 1906 b); *b, Ona* wood scraper, length 5½ in., or 14 cm. (after Lothrop, 1928, fig. 25); *c,* flesher (after Lothrop, 1928, fig. 25).

in both hands and rubbed together briskly. To preserve them, they were smeared with a mixture of grease and red earth. There was no smoking of skins.

Stoneworking.—Stone chipping was by pressure, with use of a small leg bone of a guanaco sharpened to a dull point.

Containers.—Instead of the cylindrical bark baskets of the *Yahgan*, the *Ona* used more or less rectangular envelopelike bags of guanaco or other skin, of different sizes, for holding or carrying water, food, small objects, and so forth. The man's ditty-bag of foxskin worn at the waist also served incidentally at times as a pubic covering. Small bags made of bladders, intestines, and so forth, were used for holding oil and pigments.

Weapons.—The bow and arrow were the *Ona* man's chief and almost his only weapon for hunting and fighting. They may be summarily described as follows (fig. 17). Bow: curved self-bow, length from about 3 to 5 feet (1.0 to 1.6 m.); section ovate rounded with apex toward cord; of *Nothofagus antarctica*, fluted; string of twisted guanaco sinew. Arrow: head, triangular, stemmed, and barbed, of stone, bone, or glass; fitted into socket in shaft and lashed with sinew; no foreshaft; feathering, two half-feathers lashed radially to shaft with spirally wound sinew or gut. Quiver: oblong, sewn skin. Arrow shafts were smoothed with a grooved stone rubber and given final polish with leaves or wood and stone dust on a bit of foxskin. Arrowheads were chipped by pressure with a blunt rounded bone tool. Bows were made by specialists, who received some remuneration; arrows, by nearly every man. *Ona* children played with small bows and arrows, the latter often blunt-headed. The bow was held diagonally in shooting, with primary release, or, if far shooting was desired, with secondary or tertiary. No poison was used on arrow points.

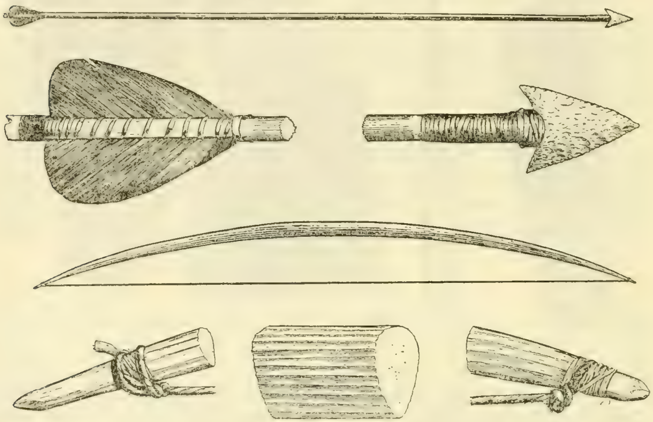

FIGURE 17.—*Ona* bow and arrow. (Length of arrow 32 in., or 80 cm.; of bow, 63½ in., or 158 cm.) (After Lothrop, 1928, pl. 5.)

A short spear, about 5 feet (1.5 m.) with a unilaterally barbed bone shank, was used for hunting and fishing. Slings were sometimes used by the *Southern Ona*. Spherical stone artifacts that may have been bolas balls have been found in *Ona* territory, and the bolas has been ascribed to the *Ona* within the last 50 years by an occasional writer (Spears, 1895, p. 59; Beauvoir, 1915, pp. 203–204), but practically all of our first-hand sources on *Ona* culture are silent regarding the bolas. Clubs were apparently used only rarely, in hunting. The atlatl was absent.

Tools.—The stone celt or ax was apparently lacking; we have neither ethnological nor archeological evidence of its presence.

Lothrop, however, found on east-coast sites several heavy oval implements, which he thought may have been used as cleavers or handaxes by earlier *Haush* or other occupants. A wedge of bone or stone was used to split the wood for arrow shafts; a scraper for woodworking, especially in making bows and arrows (fig. 16, *b*). The earlier stone or shell knife was later replaced by a terminally edged bit of iron lashed to a wooden haft (fig. 16, *a*).

Fire making and illumination.—Fire was made solely by the flint and pyrites method, with dried fungus or bird down for tinder. Fire tongs were made of a split stick. Torches were made of bark or of bundles of dry grass stalks.

SOCIAL AND POLITICAL LIFE

Marriage and the family.—From early age the sexes were kept separated. Premarital sex relations were strongly disapproved, and, except between betrothed couples, were actually, from all reports, very uncommon. Marriage with a blood relative was strictly prohibited, but limits of relationship were not very specifically set down; marriages to girls from far distant localities were decidedly favored. Marriage with a mother and her daughter was disapproved, but not so severely as blood-kin unions.

Both the boy and the girl were ordinarily free to marry the mate of their choice and affection. There was no bride-price or obligatory service to the bride's parents. Raids and wars to capture women for wives were not a feature of *Ona* culture. Forcible abductions of women from their husbands, by men of influence and power, occurred occasionally, usually more or less by agreement and understanding with the woman herself, sometimes with the help of her relatives.

Boys married only after passing through the klóketen initiation rite; girls, after first menses. According to Gusinde's estimate (1931, p. 311), the majority of young men married before they were 20 years old; the girls, between 15 and 19. There was no child betrothal proper.

In the case of first marriages, there was a formal betrothal rite which made known to the tribesmen the couple's intention to marry. The boy, after receiving assurance of the approval of the girl's parents, presented her in the presence of others with a specially made small bow, while she, in token of definitive acceptance, gave him a specially made wristlet of six-strand plaited sinew. Both painted their faces with a special design.

For all weddings, first or later, bride and groom painted their faces with lines of black dots diverging down vertically from the eyes over the cheeks. The wedding feast took place at the bride's father's hut. Couples commonly remained a while after marriage with the bride's people, but then almost without exception went to live permanently with the groom's people.

As a rule, monogamy prevailed. A small minority of the men had two wives; a very rare one, three. In one historic case, Kausel, a famous shaman, had five or eight wives. Prestige and dominance drives entered into his polygyny, as they did sometimes in other cases. Public opinion disapproved even bigamy, except on grounds of need, such as the first wife's incapacity due to age or illness. Taking more than two wives was in all cases disapproved. Usually only older men had more than one wife. Polygyny was often sororal. The levirate, quite similar in most respects to that of the *Yahgan* (p. 92), prevailed. In polygynous families, each wife usually had her own separate hut, and the first one was head wife.

Practically identical in-law avoidances were observed among the *Ona*, as among the *Yahgan* (p. 93).

In theory, the man was distinctly the head of the family and his wife as distinctly under his orders. In practice, she seems to have had a respected status both in the family and in the community and to have enjoyed not only affection but also a large measure of independence. She was neither a slave nor a drudge.

Breaches of marital fidelity occurred, but apparently not with marked frequency. The offended husband or his kin were more apt to wreak revenge on his wife's paramour than on her (Gallardo, 1910, p. 220).

Divorce occurred but rarely, and even then almost exclusively where the couple's children were grown up and married. In general, public opinion was against divorce. The more common ground was bad treatment of the wife by the husband; her relatives would try to patch up the matter and to get him to behave better; if he persisted, they would uphold her in her flight from him.

Ona kinship terminology distinguishes paternal and maternal kin in the first generation both from the parents and from one another, and siblings from more remote kin (cf. Lowie, 1933).

All dependable sources are agreed that the aged were respected and well treated.

Political life.—The biological family was the basic social unit. Each family was for most practical purposes an independent sociopolitical unit, although forming an integral part of the larger extended kinship groups, to be mentioned presently. The real authority within the whole *Ona* tribe rested with the father of the individual biological family. No man recognized authoritative headship of or accepted orders from any other.

There were no chiefs, no ruling groups or castes of any kind. Likewise there were no social classes, no sibs, and, unless the body of men who had passed through the klóketen rite could be called such, no secret societies or other organized groups.

Next in size to the biological families were the extended families, 39 of them in all, each independent and each with its own separate well-defined territory within the total *Ona* habitat. These extended families were paternally constituted. Children belonged to the lineage of the father. A young man on marrying a wife from a kinship group other than his own brought her back to his own family territory and there remained. If he died, she more commonly went back to her own kin and territory. Practically all the residents, therefore, within any one of the 39 divisions were related by blood or marriage.

Each of these localized families or kinship groups recognized the moral leadership of one of the elder men. He could hardly be called chief. He had no real authority. The office was in no sense hereditary. He would not have to be a shaman. He was well versed in tribal traditions and customary law, and spoke often of them. His influence was persuasive, not coercive. For acceptance of his counsels he counted on the general respect for elders and for established customs. The members of the localized extended families had mutual loyalty, and clung together particularly in revenge expeditions and feuds.

As previously noted (supra, Introduction), the whole *Ona* group was divided into three broad sections: the *Haush*, on the one hand; and, on the other, the *Northern* and *Southern Shelknam*. Each of these three divisions recognized a certain internal solidarity and loyalty, and between the *Northern* and *Southern Skelknam*, at least, there was an undercurrent of bad feeling. But beyond this, the divisions had no political significance.

Warfare and disputes.—There were no established public procedures for determining criminal guilt and for inflicting punishment. The *Ona* were strongly given to revenge and were outspoken in their anger at a taint of honor or rights. There were no wars in which large numbers took part. Most group fighting was carried out by from 8 to 20 men on each side, each party commonly composed of relatives harking from a given extended family territory. The three chief causes of feuds and hostilities were murder, exploitative trespass on family territory, and suspicion of malicious witchcraft in cases of illness or death.

In preparing for battle the men rubbed their bodies with red earth as camouflage and went into the fray singing their war song. There was no torture of captives, nor, for that matter, any purposive taking of captives, although an occasional woman of the losers fell into the hands of one of the victors.

Where the cause or injury was of minor nature, especially in case of calumny and slander, conflicts were settled more by rough wrestling matches or by a duel with bow and arrow. The women, too, sometimes engaged in tongue-lashing duels.

In the peace-making rite described by Lucas Bridges (1938), each man of one party gave a chosen antagonist of the other five arrows with the heads removed and the shafts bound with sinew or hide around them to form a button the size of a cherry about one-half inch from the distal end in order to prevent it from penetrating too far, then came running and dodging toward him, while the latter shot the arrows at him, from a distance of about 70 to 90 yards (63 to 81 m.) to less than 40 yards (36 m.). The roles were then reversed. After all men members of the two bands had gone through this modified dueling once, the women of the two bands went fishing together, the young lads wrestled in friendly fashion, and amicable relations were resumed.

Etiquette.—Cleanliness was admired but not strictly practiced. Bathing in sea or stream was not in vogue. Morning ablutions were commonly reduced to washing the eyes with a little water or snow. A powdered earth or powdered dried tuco tuco liver was sometimes rubbed over the body as a cleanser. When visitors approached, the mother usually hastened to give a quick washing and powdering to herself and her children and to tidy up the hut a little.

Hospitality to a guest was given as a matter of course. A guest on entering kept silent, without looking around curiously, and only after a while began to tell his story. Eating gluttonously or hastily, especially when on a visit, was disapproved.

Kissing, practiced only between certain close relatives and young married couples or lovers, was done, not lips to lips, but by pressing lips to the head, cheek, or arm of the other, with slight suction.

It was bad form to mention the names of neighbors, and particularly to mention the names of the deceased in the presence of their relatives. (For further details on etiquette, see Gusinde, 1931, pp. 466–474.)

ECONOMIC LIFE

Ownership.—While the *Ona* claimed exclusive right to their whole habitat as against outsiders, the whole *Ona* country was divided into 39 distinct territories, each of which was held exclusively by a different paternal extended family. Such an extended family ranged in size from about 40 to 120 persons. The territory belonged to the family as such. Each man of the family had the right to hunt on it wherever he chose. None of this family land could be alienated. Exploitative trespass on it by nonmembers of the family was deeply resented and was looked upon as ground for bloodshed and even war. Hunters from other families and territories could be received as guests and could hunt with and at the will of the members of the particular extended family. Such a guest, if short of food or of other raw material which he needed, would ask such permission and only in the rarest cases would be refused. A son inherited such rights of tenure and hunting from his father automatically without any particular formality. Owing to such paternal succession and to patrilocal residence, the group exploiting any one of the 39 divisions was made up exclusively or dominantly of kin. The one major exception to such exclusive territorial rights of exploitation was the finding of a stranded whale; any members of the whole *Ona* tribe could come and partake of such, although certain prior rights accrued to the members of the territory on which the whale was found, Clothing, adornments, weapons, tools, baskets, playthings, and the like were owned as personal property by women and children as well as by men.

Property was acquired through occupation, labor, donation, and barter. Barter was carried on without any kind of currency; there was no barter by exchange of presents. Acquisition by inheritance was practically lacking; all an individual's personal belongings were burnt at his death, except his dog, which was given to some relative or friend.

Stealing from fellow *Ona* was severely reprobated, and was actually very rare. Theft of goods led to boycotting and loss of caste, while trespass on another family's hunting territory led to fights and bloodshed. The stealing of sheep from White ranchers who had driven the *Ona* from their fatherland was regarded by the latter in another light.

Labor.—There was no slavery or slave labor, and very little labor in common. Nor were there any craftsmen who made their whole living by specialized trades, although some expert bowyers received compensation for their products.

Within the province of the man fell the following duties: Hunting, fishing with the large net, stripping flesh and blubber from stranded whales, skinning animals, making his own weapons and containers, and bringing in heavy logs for the fire. Among the woman's chief duties were: Caring for the younger children, gathering shellfish, small fish, fungi, and plant food, fetching drinking water, tending the fire, cooking, looking after the hut in general, dressing skins, making baskets, sewing, and carrying the household impedimenta on the march.

There was no incentive to accumulate wealth, and no prestige attached to possession of wealth.

LIFE CYCLE

Childbirth and infancy.—The *Ona* were quite aware of the relation of coitus to conception; conception and foetal development were believed to demand repeated coitus. No contraceptives or abortives were known or used, and there is no clear evidence of infanticide. Delivery was in a half-sitting position. After delivery there was no prescribed bath in the sea or stream for mother or child. The mother often washed her whole body with wet clay. After delivery she abstained for about a month from certain foods, while the father ate lightly; but there was no couvade. The navel string, dried, was put in a small pouch; when the child was able to walk alone, the father caught a certain small bird, and the child tied the pouch around the bird's neck; the father then put the bird in the hands of the child, who let the bird loose to fly away; every bird of this species would then protect the child (Gusinde, 1931, pp. 377–378). The newborn child was placed in a sort of baby sack made of a rolled bit of hide lined with furs; a special eyeshade for the child was used; about the end of the third month he was placed in a ladder-type cradle (pl. 38, *bottom*, *left*). Children seldom cried. They were nursed whenever they indicated desire to do so. There was no naming feast; names usually became attached to the child from some bodily characteristic.

Education.—Elders frequently exhorted children to socially recognized standards of childhood behavior, going into minute details thereupon, and proposing motivations of self-regard, family and tribal pride, threats of shortened life, and sometimes the will of Temáukel, the Supreme Being. The sexes were kept separate and watched vigilantly from very early years.

Girls' puberty.—At her first menses the girl for several days fasted rather rigorously, kept quietly in her father's hut, painted her cheeks under the eyes with thin white vertically diverging lines, and was given much counsel on her duties as maid, wife, and mother.

The klóketen initiation and men's rite.—This rite, participated in exclusively by the men and adolescent boys, was the most important *Ona* social and religious function. Two basic concepts underlay it. First, it was a male device to keep the women in subjection by supernatural hocus-pocus, insofar corresponding to the *Yahgan* kina rite; second, it was a boys' initiation ceremony and training course, and insofar correspond to the *Yahgan* čiéxaus (p. 98) rite.

The myth back of the klóketen rite was an elaborate one, quite similar in all essentials to the one back of the *Yahgan* kina rite (q. v.), describing how the men turned the tables on the previously dominant women. A special large conical hut was erected at the farthest border of an open space, across which at a distance of 180–200 paces were the camp tents. The women and uninitiated children were rigidly barred approach or access to the klóketen hut. The father of the oldest of the candidates was by right the leader of the ceremony; these had to be of postpubertal age. The rite was given from time to time as occasion offered or demanded, and lasted sometimes as long as 4 to 10 months, or even longer.

In accordance with the double objective of the rite as a whole, two parallel sets of activities characterized it.

First, previously initiated and adult men impersonated various supposed spirits, painting their bodies in different ways and wearing conical or conoidal masks of bark or hide, and would issue from the large hut, dance, posture, and call in the sight of the women, and threaten them with punishment if they did not obey the men. The women are said to have believed implicitly in the reality of the supposed spirits; the men, of course, did not, and the boy candidates were soon told of the skulduggery involved, with the strict admonition under dire threats not to reveal the facts to the women or other noninitiates.

Second, for the duration of the rite, the boy candidates stayed at night in the large hut, had to do with little sleep and little food, to talk little, to assume a cramped sitting posture, and to make long travels afoot. They were further given long and intensive instruction and training in their vocational as well as their social obligations and responsibilities (pl. 38, *top*, *right*).

The rite concluded without a formal feast. The young candidates were simply ushered back to their mothers' tents, camp was broken, and the families dispersed for their hunting.

The shamans entered quite prominently into the rite in connection with the supposed spirits. Temáukel functioned therein only slightly, chiefly in connection with the inculcation of social duties. Only by going through the klóketen rite could a boy attain full-fledged membership in the tribe.

Death observances.—Death was believed to be due either to natural causes such as old age, accident, murder, or war, or to machinations of a shaman. But in the last analysis it was always the Supreme Being, Temáukel, to whom death was attributed.

Mourning was expressed by body painting with charcoal, wailing, scarifying, and tonsuring. There were quiet complaints against Temáukel for his part in the death of the deceased, but not the wild, demonstrative ones of the *Yahgan*. There was no clearly institutionalized general mourning rite.

There was no cremation. The body was rolled and lashed in fur mantles, at full length, and was interred in supine posture.

After a death, the camp site was for a long time avoided. The name of the deceased was not mentioned, at least for a couple of years. There was a marked fear of human bones.

Future life.—The soul (kášpi) at death went to Temáukel at his abode beyond the stars. Nothing in detail was known of its condition or fate there, which was the same for all regardless of moral behavior here on earth. The kášpi never returned, and there was no concept of metempsychosis. The shade of a dead person ("men") might come back in dreams. (On souls of dead shamans, cf. infra under Shamanism.)

ESTHETIC AND RECREATIONAL ACTIVITIES

Ona esthetic culture may be described better in negatives than in positives. As among the *Yahgan*, esthetic development was extremely rudimentary.

Art.—No realistic carving, painting, or drawing was done. Design was confined to the simple geometric patterns of face and body painting.

Games and sports.—Among grown-up men the most popular sports and games were: Wrestling, foot races, archery duels, and a contest in which each of two rows of men tried to push the other back. Less popular were the ball game, like that of the *Yahgan*, and the throwing of burning faggots at one another by two rows of men.

The chief boys' games and plays were: Practicing with bow and arrow and with sling; aiming to shoot an arrow through a grass ring as it was rolled along; shooting, with bow, sticks or old headless arrow shafts lighted at one end; swinging head down by bended knees. Popular games with girls were: Dolls, playing house, hide and seek, tickling one another, swinging, playing ball, forming a circle and running and springing at the same time. Young infants were given a sort of rattle made of five mussel shells, perforated and strung on a bit of sinew.

Gambling was absent; so, too, were games with complicated rules.

Young fellows showed their power to endure pain by placing a bit of glowing coal on their forearm until it burnt them rather severely.

There were no alcoholic beverages and no tobacco or substitute therefor. Narcotics were totally lacking. Actually the *Ona* were one of the few primitive tribes who did not take kindly to the White man's intoxicants.

Music.—Songs, while rhythmic, were very simple and monotonous. For that matter, about the only songs sung were connected with shamanistic and klóketen rites and with war. The *Ona* were not accustomed to free recreative singing. Musical instruments were completely absent.

Dancing.—Apart again from ritual dances, there was very little recreative dancing, and symbolic dances were entirely absent.

RELIGION

As with the *Yahgan*, the religious life of the *Ona* revolved primarily and almost exclusively around theism and shamanism. All in all, shamanism bulked larger and theism smaller in religious consciousness and life among the *Ona* than they did among the *Yahgan.* About the only traces of *Ona* shamanistic cult were the relationships of the souls of dead shamans to the living medicine men. Shamanism itself was predominantly built upon animistic conceptions. Certain minor omens and taboos not directly associated with either theism or shamanism were prevalent; for instance, if guanaco meat was wantonly wasted, the guanaco would be angry and the guilty hunter would kill no guanaco for a long time. But such observances appear to have had minor importance in *Ona* religious life. The klóketen rite previously described had certain distant relationships with theism and closer ones with shamanism, but was in the main more a social than a religious ceremonial.

Theism.—The *Ona* had a very clear belief in a Supreme Being whom they called Temáukel. They seldom mentioned his name; instead they would refer to him as "That One There Above" or "The One in Heaven." He lived above the stars, far from the world and in most respects was rather indifferent to worldly affairs. He took no part in men's doings except to punish the individual by inflicting death on the group by sending epidemics. It is doubtful if he was the creator of the original unformed universe; Kenós, the *Ona's* first ancestor, was commissioned by Temáukel to put the universe in shape. Temáukel had no body, no wife or children, was the most powerful being, and always existed. In a broad sense he was the author and overseer of the socio-moral order, the ultimate originator of customary law, and the final sanctioner thereof.

Punishment was inflicted by Temáukel on the evil-doer only in this life, through early death. In general, while Temáukel thus had some dynamic relation to man and to the social order, in many respects he had the characteristics of an otiose High God. He seems to have entered much less intimately into the daily life of the *Ona* than did the *Yahgan's* Supreme Being into theirs.

There was no set ritual connected with Temáukel and no priesthood. The *Ona* had a very deep sense of respect for him. They prayed to him, particularly in cases of very grave illness, but without the numerous formulae such as the *Yahgan* used. Altogether the *Ona* seem to have prayed to him much less than did the *Yahgan* to their Supreme Being, and prayers of thanks were either very rare or nonexistent.

Two simple sacrifices were offered. When a man or woman wished to take something to eat late at night, he or she would first take a bit of meat and throw it out of the hut, as an offering to Temáukel, saying: "This is for the One Above." During a tempest or snowstorm, a woman would sometimes throw out a bit of glowing coal, as an offering to Temáukel to bring better weather.

Shamanism.—Shamans (xon, yohon), mostly men, seem to have played an appreciably more important part in *Ona* religious and social life than in *Yahgan*, and to have been on the whole more feared.

The call to the office came most generally in dreams, in which the spirit of a deceased medicine man appeared to a person, invited him to seek the vocation, and, finally, transferred to him his own special song and power. Training for the craft, commonly given privately by a shaman father to his son, lasted 2 or 3 years. There was no public group training institute like that of the *Yahgan;* the *Ona* peshére, shamans' assembly, held for 5 days in a special large conical hut, was more a social gathering, which, however, had also the purpose of recruiting new candidates. There was no society or organization of medicine men; each worked quite independently, and very commonly in deadly rivalry with and antagonism to his fellow shamans.

The shaman cured, influenced weather and hunting, helped his group in their warlike pursuits, and so forth. Curing procedures included extraction from the patient's body of the small object, often an arrowhead, responsible for the illness. One of the most frequent, if not the most frequent, task of the medicine man was to wreak evil upon his own or his clients' enemies. His part in the klóketen rite has been previously mentioned.

In the exercise of his profession, he did not call upon Temáukel for aid. The real source of his power was the spirit of the deceased medicine man who worked in and through him.

MYTHOLOGY

The more important mythological and folklore cycles were those concerned with the adventures and deeds of: Kenós, the first man, agent of Temáukel, who gave the *Ona* their land; K'aux, the mighty hunter who divided their land into the 39 hunting territories and assigned one to each family; Kwányip, the hero who overcame the malevolent Chénuke and the giant cannibal, Cháskels; North and South and their struggles with each other for mastery; Sun and his wife, Moon (part of the story concerned with the legendary early matriarchate, mentioned previously); the mythical ancestors of the *Ona;* the primeval manlike beings who later turned into mountains, lakes, rivers, and the like. Explanatory folk tales were numerous. The *Ona* flood story does not seem to have been part of any of the above cycles. (Details in: Gusinde, 1931, pp. 568–696; Cojazzi, 1911, pp. 31–33, 38, 76–92, 101–102.)

No cult of these mythological beings existed. Temáukel did not enter except very indirectly (in the case of Kenós) into myths or folklore.

The *Ona* had a very definite tradition that their ancestors came afoot to what is now the tribal land, from the north beyond the present Strait of Magellan, which was formed after their arrival as the result of a great cataclysm.

LORE AND LEARNING

Ona technology was, like that of the *Yahgan*, very simple. Some of the products, however, such as the bow and arrow, were of consummate workmanship.

Standard weights and measures were absent. So, too, were such means of communication as knotted cords, notched sticks, and travelers' camp signs. Smoke signaling was common.

Two chief seasons were recognized, winter and summer, with two minor transitional ones, spring and fall. Winter included six "moons"; summer was divided into egg-laying, hatching, guanaco pregnancy, young guanaco, and molting periods.

Herbal curatives were lacking. Massage was a common procedure in minor indispositions. For lung ailments and coughs, a piece of guanaco bezoar (called in *Ona* "the guanaco's fire-making apparatus") was ground to powder, put in a mussel shell with water, heated over a fire, and drunk (Gusinde, 1931, pp. 712, 1120). Crude splints were used for broken arms and legs.

The *Ona*, prior to European influence, had names only for numbers up to 6 and for 10 (Lothrop, 1928, p. 50, data from the Bridges brothers), or only for numbers up to 5 (Gusinde, 1931, p. 1107).

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THE PATAGONIAN AND PAMPEAN HUNTERS

By John M. Cooper

NATURAL ENVIRONMENT

The section of the Pampa which here interests us (map 1, *Nos. 1D*, *1E*, *1F;* map 2) extends about 600 miles (960 km.) north to south from about a line between Córdoba and the mouth of the La Plata to a line between the Río Colorado and the Río Negro (pl. 3, *bottom*, *right;* pl. 4, *top*, *left*), where Patagonia begins, and thence stretches about 1,000 miles (1,600 km.) from north to south to the Strait of Magellan and the isthmus connecting Brunswick Peninsula with the mainland. The Pampa is a low-lying plain, nowhere over 1,000 feet (305 m.) above sea level, except for the Sierra del Tandil and Sierra de la Ventana in southern Buenos Aires Province. Apart from the low coastal belt, Patagonia is mostly a broken tableland, one to five thousand feet above sea level (pls. 1 and 2).

Average temperatures at Buenos Aires, near the northeastern limit of the Pampa, are 48.9° F. in July, the coldest month, and 73.6° in January, the warmest month; at Choele-Choel, near the border line between the Pampa and Patagonia, 45.1° and 75.4°; at Santa Cruz, in far southern Patagonia, 35.2° and 58.6° (cf. New York City, 30.6° in January and 73.5° in July). The Pampa is marked by frequent steady-blowing high winds; Patagonia, by still more frequent blustery violent winds from the west and southwest.

The eastern, or Humid Pampa, is, or was, treeless grassland (pl. 3, *top*, *right*, and *bottom*, *left;* pl. 4, *top*, *right*); the western or Dry Pampa (pl. 3, *top*, *left*), xerophytic scrub-tree and bush land; most of Patagonia has cover largely like that of the Dry Pampa, but considerable grassland especially in the western part. Along the piedmont and eastern slopes of the Andean Cordillera flanking the Pampa and Patagonia to the west, is a broken forest belt (pl. 4, *bottom*, *left* and *right*) constituting an extension of the Antarctic flora with its beeches and other characteristic trees and shrubs. (For fuller details on environment, cf.: Jones, 1930; James, 1942.)

Of the land fauna, the most important from the native standpoint were the guanaco (*Lama glama guanicoe:* Cabrera and Yepes, 1940,

p. 257) and the rhea (*Rhea americana* in the north, *R. darwinii* in the south) (pl. 1). Guanaco more commonly go in small herds consisting of an adult male and 4 to 10 females; sometimes, in small herds of young males; less commonly, in larger herds up to about 100 head, or in ones or twos. Communal hunting was consequently more usual; hunting singly, less so.

THE PATAGONIAN AND PAMPEAN TRIBES

Notwithstanding the notorious complexities and obscurities of Patagonian and Pampean tribal nomenclature and distribution, certain simple broad facts stand out quite clearly, as amply established by the evidence. Since the early 18th century, at least three distinct linguistic families have been determined for the area: *Araucanian*, *Puelchean*, and *Tehuelchean* (*Chon*). The peoples speaking these languages have been quite consistently described as respectively short-statured, fairly tall, and very tall—characterizations borne out by more exact measurements, particularly of the first and third. The cultures, too, of the three peoples can, in spite of much mutual borrowing and much underlying similarity, be readily distinguished—the *Araucanian* versus the *Tehuelche* very clearly, the *Puelche* versus the *Araucanian* and *Tehuelche* less clearly. Taking this well-established broad triple division as a starting point, we can approach more closely the Patagonian-Pampean confusion with less fear of leaving it at the end more confounded that it was; at the worst we can fall back to our starting point.

The Araucanians.—Slight infiltrations of *Araucanian* blood and culture across and down the Andes onto the eastern foothills and plains had taken place during the 17th century, and a little probably even in the 16th. But the major swarming of the *Araucanians* out over Neuquén and the Pampa got under real headway only in the early years of the 18th. The early piñon-eating "*Puelche*" or "*Pehuenche*" of the high cordilleran valleys, who are from time to time mentioned in the Chilean documents of the 16th and 17th centuries, may have been non-*Araucanian* in speech, but there is an even chance that they or a section of them were *Araucanian*-speaking. At any rate, from at least the time of Pietas (1846, p. 499), they were clearly *Araucanian* in speech, and from at least the beginning of the 19th century, they, or the peoples who then lived near where the early *Pehuenche* had lived, were thoroughly *Araucanian* in culture. (Cf. De la Cruz, 1835; Poeppig, 1835–36.)

In view of the foregoing facts, the Argentine *Araucanians* and the early "*Pehuenche-Puelche*" of the cordilleran Araucaria forest will be described in volume 2 of the Handbook, under *Araucanians*, and will be given no further direct treatment in the present article.

The Tehuelche.—The name (etymology uncertain) was first used by the Jesuit missionaries of the middle 18th century, has many variants, and has at times been applied to tribes (cf. infra under *Puelche*) other than the one known to modern anthropology as the *Tehuelche*.

The chief variants of "*Tehuelche*" are: *Tuelche* (Camaño, 1937, p. 114); *Toelchi* (Cardiel, 1930, p. 247); *Toelche* (Cardiel, 1938, p. 141); *Tewelche* (Milanesio, 1898, p. 38); *Thehuelche* (Beauvoir, 1915 p. 183); *Theguel-che* (Berg, 1875, p. 371); *Teguelche* (Piedra, 1837, p. 77); *Tehuelci* (Borgatello, 1924, p. 12, Italian *c*); *Tuehelche* (Milanesio, 1898, p. 38); *Toelchú* (Cardiel, 1930, p. 252, Strobel, 1922, pp. 74–75); *Tuelchu* (Camaño, 1937, p. 114); *Thuelchu* (Sánchez Labrador, 1936, p. 29; Dobrizhoffer, 1822, 1: 131); *Tehuelhet* (Falkner, 1774, p. 102); *Tehueleto* (Villarino, 1837, p. 88); *Chehuelchu*, *Cheuelchú* (Muñiz, 1917, pp. 203, 212); *Tchéouelche* (Guinnard, 1864, p. 63); *Chequelcho* (Lista, 1879 a, p. 75; 1879 b, p. 73); *Tehüiliche* (Hale, 1846, p. 651).

The designation *Patagoni*, first given to the *Tehuelche* by Magellan in 1520 (Pigafetta, 1906, 1: 60), appears frequently in the later sources.

The *Tehuelche* called themselves *Choanik* (Gardiner, 1852, p. 23); *Tchonek* (Musters, 1872, p. 194); *Choonke* (Lista, 1879 b, p. 73); *Tonic* or *Tsonik* (Claraz, 1896, pp. 524–525); *Chonqui* (Cordovez, 1905, p. 32—so called by Chileans). The name is derived from the *Tehuelche* word, *tsonik* ("people," Claraz, 1896, p. 525), *tsonke* ("people," Ameghino, C., 1913, p. 260), *choonke* ("indio," Lista, 1879 a, p. 81), *chonk* ("hombre," Beauvoir, 1915, p. 184), *ächōntk* ("hombre," Lehmann-Nitsché, 1913, p. 260). *Tsoneca* (Schmid, 1912; Musters, 1871, p. 183) *tsoneka* (Moreno, 1879, p. 376), *tzoneka* (Lista, 1879 b, p. 75), occur as the name for the *Tehuelche* language.

The *Tehuelche*, especially the southern ones, also called themselves *Ahonicanka* (Musters, 1872, p. 194); *Ahonnekenke*, *Ahonekenke* (Moreno, 1879, pp. 226, 376), *Aóniken*, *Aónik(e)nk(e)n* (Spegazzini, 1884, p. 226), *Aônükün'k*, *Aôniko-tshonk* (Lehmann-Nitsche, 1913, p. 219); *Aônikenke* (Beauvoir, 1915, p. 183), *Aóeni Künk* or *Kenk* (Harrington, 1943, p. 3). *Harwaneki*, *Hawaneki* (Gardiner, 1852, pp. 22, 24), *Haveniken* (Virchow, 1879, p. 199), *Hauaniker-Tsonik* (Claraz, 1896, p. 525) appear to be variants of the preceding. D'Orbigny (1835–47, **2**: 95) has *Inaken* for the southern *Tehuelche* (cf. *Tehuelche nuken*="hombre," Outes, 1913 a, pp. 488–489; *nooken*="hombre," Ameghino, C., 1913, p. 260).

The southern *Tehuelche* called the northern *Tehuelche Payni-ken* (Gardiner, 1852, p. 22); *Paígnk(e)nk(e)n* (Spegazzini, 1884, p. 226), *Pä'änkün'k*, *Pä'änkotshonk* (Lehmann-Nitsche, 1913, p. 219).

To denote the whole tribe, including both its northern and its southern division, we are using in the present article the term *Tehuelche*, since this term or some variant thereof has been more commonly accepted for the last two centuries.

Since the middle of the 18th century, two main divisions of the *Tehuelche*, each with its own dialect, have been recognized. To the Jesuit missionaries of the time these divisions were known as the *Tehuelche* "de á cavallo," or northern division, who had horses and who lived in the Río Negro Colorado and Río Negro country, and the *Tehuelche* "de á pie," or southern division, who lacked horses and who occupied the region south of the horse *Tehuelche* as far as the Strait of Magellan. These southerners were included by Falkner in his *Yacana-cunnces* ("foot people": Falkner, 1774, p. 111; Lehmann-Nitsche, 1914, pp. 229–230; cf. Cooper, 1917, p. 86).

A similar division into northerners and southerners is recorded consistently in our 19th century sources (D'Drbigny, 1835–47, 2: 95; Cox, 1863, p. 165; Musters, 1871, p. 70; Lista, 1879 a, p. 75, 1879 b, p. 74; Spegazzini, 1884, p. 226). According to Lehmann-Nitsche (1913, p. 219), the northern and southern *Tehuelche* were called by the southerners *Pä'änkün'k* and *Aônükün'k* respectively.

In the 18th century the two divisions spoke dialects differing so widely that members of one division could only with difficulty, if at all, understand those of the other (Sánchez Labrador, 1936, p. 30; Hervás, 1800–05, 1: 134). According to our more recent sources from Cox on, dialectic differentiation, though appreciable, was less marked. There was also a third dialect, *Tä'uüshn* (*Téuesh, Téhuesh, Téhueshen, Téuesson, Téhueshenk, The-ushene, De-ushene*). This dialect, according to Outes, was spoken long ago, and in 1905 was still spoken by some of the oldest *Tehuelche* in addition to the usual *Tehuelche* language (Lehmann-Nitsche, 1913, p. 238; Outes, 1905, p. 249; cf. Hunziker and Schmid, *in* Outes, 1928 a, pp. 273–274). In 1891 the *Tä'uüshn* dialect was still spoken by older men, but was not understood by the younger *Tehuelche*-speaking generation (Burmeister, C., 1891, p. 280). *Tehuelche* with its dialects constitutes, together with *Ona* and its own dialects, the independent *Chon* linguistic family.

Since the middle of the 18th century, the northern boundary of the *Tehuelche* has pretty consistently been put at or around the Río Negro (Sánchez Labrador, 1936, p. 30; Cardiel, 1938, pp. 141–142; Hervás, 1800–05, 1: 134; Viedma, 1837 b, p. 79; D'Orbigny, 1835–47, 2: 95; 212, north to 40° S. lat.; Spegazzini, 1884, p. 226; Outes, 1905, p. 241; Lehmann-Nitsche, 1913, p. 230). To be more exact, the territory of the *Tehuelche* in historic times appears to have extended over the whole of Patagonia from the Río Negro and its affluent, the Río Limay, to the Strait of Magellan and the isthmus connecting Brunswick Peninsula with the continent. In the middle 18th century, the *Tehuelche* may have extended on the Atlantic side, at least as casual occupants, a little farther north than the Río Negro, to the Río Colorado, to judge from the reports of Cardiel (1930, p. 272) and Sánchez Labrador (1936, p. 30). In the second half of the 19th century, *Araucanian*-speaking peoples extended down the Andean piedmont some distance south of Lake Nahuel-Huapí and the Río Limay. (Musters, 1871, map; 1872, p. 195; cf. Cox, 1863, pp. 94, 164, and La Vaulx, 1901, map and passim.)

The dividing line between the horse and foot *Tehuelche* on the Atlantic side in the middle 18th century was about 100 leagues south and west of the Río Negro (Cardiel, 1922, p. 63). The dividing line between the great northern and southern hordes in the second half of the 19th century was the Río Chubut according to Cox (1863, p. 165) and Lista (1879 a, p. 75; cf. Lehmann-Nitsche, 1913, p. 230), the Río Santa Cruz according to Musters (1872, p. 194; cf. Spegazzini, 1884, p. 226).

Tehuelche population.—Population data on the *Tehuelche* are very unsatisfactory. As regards particular groups of the *Tehuelche*, Barne (1836, 5: 21) estimated at 1,400 the number of Indians at Port San Julian in 1753; Bourne (1853, p. 59), at about 1,000 the band with whom he traveled in 1849. As regards the whole *Tehuelche* tribe, the estimates in our records are the following: Viedma (1837 b, p. 79), 4,000 souls, in 1780–83; Muñiz (1917, p. 213), less than 4,000 able to bear arms, in circa 1826; D'Orbigny (1835–47, 2: 97; 4: 192), 8,000 to 10,000 souls, in 1829; Fitz-Roy (1839, 2: 131), four groups of about 400 adults each, with a rather large proportion of children, and with women outnumbering men three to one, in 1833; Coan (1880, p. 171), about 1,000 souls, in 1833–34; Gardiner (1852, p. 22), 9,000 to 10,000 souls, in 1842; Cox (1863, p. 166), about 6,000 souls, in

1862–63; Musters (1871, p. 184; 1872, p. 204), not over 1,500 souls, about 1,400, in 1869–70; Berg (1875, p. 371), 200 [2,000–?] souls, in 1874; Lista (1879 a, p. 75), about 500 warriors, 2,000 to 3,000 souls, in 1878–79; Roncagli (1884, p. 768), 300 [warriors–?], in 1882; Spears (1895, p, 159), perhaps about 500 souls, in 1894, according to gaucho informants; Hatcher (1903, p. 262), doubtful if over 500 left, in 1896–99; Borgatello (1924, p. 134), at most 1,300 to 1,500 souls. Of the foregoing writers, probably Viedma, Muñiz, Fitz-Roy, Musters, and Borgatello were best situated to learn the facts.

Detailed data on the *Tehuelche* are given by Reiher (1920, p. 115) as of 1913–14, for the *Tehuelche* then living on the reserve in Santa Cruz territory: 35 men, 40 women, 17 boys, 15 girls—of whom 4 were non-Indians, and about 50 of the rest were full-blooded *Tehuelche.* The present writer has not found it possible to obtain statistics on the number of *Tehuelche* surviving today (1943).

In 1829 the population had become reduced by one-half since the smallpox epidemic of 1809–12, according to D'Orbigny (1835–47, 2: 97). Borgatello (1924, pp. 133–136) attributed the modern decline in numbers to wars with the Whites, smallpox, and alcohol. Reiher (1920, p. 118) called attention to the widespread incidence of pulmonary diseases at the time (1913–14) among the reserve *Tehuelche,* and believed that change of diet, from meat and plant food, to meat, biscuit, and marmalade, had been largely responsible.

Before passing on to consideration of the *Puelche*, four minor groups of Indians found in Patagonia or adjacent thereto call for brief attention: *Ona* and *Alacaluf*, *Caucahue*, *Huilliche Serrano*, and *Poya.*

Ona and Alacaluf.—Falkner's *Yacana-cunnees* were described by him as tall people living on both sides of the Strait of Magellan, those on the south side being obliged to cross the Strait in order to communicate with the *Yacana* cacique, Tamu, Falkner's friend (Falkner, 1774, pp. 91–93, 111; discussion in Cooper, 1917, p. 86, cf. pp. 195–196). King (1839, 1: 104, 113) in 1827–28 saw a Fuegian [*Ona?*] Indian among the *Tehuelche* of Gregory Bay. Coan (1880, pp. 103, 127, 171), who spent about 2½ months with the *Tehuelche* in 1833–34, very definitely reported that one clan in southern Patagonia was largely made up of Indians from Tierra del Fuego and spoke a dialect different from that of the other *Tehuelche.* Gardiner (1852, pp. 21–24) found a number of Fuegians, apparently *Ona*, mixed with or residing among the southern *Tehuelche* (cf. also Gardiner and Hunt, 1852, pp. 31, 33, 35, 40). Spears (1895, p. 129) also stated that a considerable number of *Ona* had been found in Patagonia and were still there. Likewise, Spegazzini recorded (1884, pp. 233, 235, 237) the presence of Fuegians [*Ona*?] among the *Tehuelche.* It seems fairly clear, from these sources, particularly Falkner, Coan, Gardiner, and Spears, that an appreciable migration of *Ona* across the Strait of Magellan into *Tehuelche* territory occurred in the last couple of centuries.

Moreno (1879, p. 378) referred to the capture of *Alacaluf* women by the*Tehuelche;* Dumont d'Urville earlier (1842, 1: 51, 156, 265–266), of *Alacaluf* children. The *Huaicurú* mentioned by Cox (1863, p. 165) may also have been *Alacaluf;* the *Guaïcaro* vocabulary gathered by Lista (1896, p. 41) from a *Guaïcaro* medicine man living among the *Tehuelche* is *Alacalufan.*

Caucahue.—In the early Chilean chronicles from 1641 on, the tribal denomination *Caucahue* (*Caucau*, and other variants) occurs sporadically, as applied in the most confusing manner, sometimes to short or medium-statured Indians of the western coast archipelago, at other times to "gigantic" Indians of the mainland. (Cf. details in Cooper, 1917, passim.) Our most detailed account of the latter tall type is that of Pietas (1846, pp. 503–504). He described the *Caucahue*, one of whom he had seen, as "gigantic" in stature, living south of the *Chono*, between the Cordillera and the Golfo de los Evangelistas, and speaking a language unknown to any one in Chiloé. It is quite possible that these tall "*Caucahue*" were *Tehuelche*, but by no means certain. They were very expert in the use of a heavy throwing club. (Cf. also Morrell, 1832, pp. 100–101, on "*Caucau*" met by him in the Guaianeco Islands in 1923.)

Huilliche Serrano.—It is quite possible, too, that the *Huilliche Serrano* of the Chilean chroniclers were *Tehuelche*, or perhaps *Puelche*, to judge from their tall stature as compared with that of the *Araucanians* and from their geographical location. (Cf. original data assembled from sources by Latcham, 1929–30, 64: 218–220.) But our information upon the *Huilliche Serrano*, as upon the tall *Caucahue*, is too meager to justify any but the most tentative surmises as to their ethnic relationships.

Poya.—As regards the *Poya* (*Pouya*, *Pogya*) we are a little better off. (Cf. original source data assembled in: Latcham, 1929–30, 64: 220–222; more fully, *Vignati*, 1939 a; Fonck *in* Menendez, 1900, passim, and esp. p. 319, on "*Puelche*"=probably *Poya.*) They should not be confused with the *Araucanian*-speaking *Poyo* or *Payo.* (Cf. Cardiel, 1938, p. 141; E. Simpson, 1875, p. 104.) The *Poya* were described by three of our four chief sources as big bodied. They spoke a non-*Araucanian* tongue. They lived in the general region of Lake Nahuel-Huapí, to the south or southeast thereof. Cardiel (1938, p. 141) seems to class the *Poya* as a branch of the foot *Tehuelche.* The *Poya* made an intoxicating beverage from a wild fruit called by them muchi (Olivares, 1874, p. 511; Menendez, 1900, p. 412); muchi is the *Tehuelche* name of the fruit of the *Duvaua dependens*, called huingan by the *Araucanians*, and eaten by the *Tehuelche* (Cox, 1863, p. 211). Vignati (1939 a, p. 237) has called attention to the custom of septum perforation, certainly unusual in these parts, attributed independently to the *Poya* by Florez de León (1898, p. 256) and to the early *Tehuelche* by Fletcher (Drake expedition, 1578: see Fletcher, 1854, p. 50). The identification by Vignati (1939 a, p. 237) of the *Poya* supernatural being, *Chechuelli* (*Chahuelli:* Olivares, 1874, pp. 511, 514, 516, 519) with the *Tehuelche* being called *Cheleule* (Pigafetta, 1906, 1: 60, 78; Outes, 1928, b, p. 380) appears less convincing.

All in all, there seems to be fairly good evidence, although far from decisive, that the *Poya* were *Tehuelche.* In view, however, of certain cultural peculiarities of the *Poya*, as well as of their still somewhat uncertain linguistic affiliation, we shall devote a special short section to them in our treatment of Patagonian-Pampean culture.

The Puelche.—The name by which the *Puelche* call themselves is *Genakin* (Hunziker, 1928 b, p. 277, "*Genacin*," *c*=*k*), from genă, "gente, pueblo, nacion" + – *kin* (?). Variants are: *Gennacken* (Moreno, 1879, p. 220), *Gennaken*, *Genakenn*, *Gūnūna Kùne*, *Gününa Küne* (Harrington, 1933–35, 1943). In the present article we are using for the *Genakin* the name *Puelche*, as the one best known and longest established in anthropological literature.

The name *Puelche* (*Puelcho*, and other variants) is from *Araucanian* ("eastern people"). It was first used in our sources by the Chilean chroniclers to denote various groups living in or near the higher cordillera or on the plains to the east—the people later known as *Pehuenche* (the piñon-eaters of the high cordilleran valleys), or the plains people in general east of the Chilean Cordillera, or sections thereof. Later it was much used by Chilean *Araucanians* and Whites for the *Araucanians* who spread out over the Pampa. In these senses the name usually either excluded the people known to modern anthropology as the *Puelche* or else included other peoples as well. It was from the beginning a geographical rather than a strictly tribal name, and remained so down to recent times. Hence the unending confusion in its use.

In the middle 18th century, *Puelche* began to be used by the Jesuit missionaries (cf. Lozano, 1924, p. 297; Sánchez Labrador, 1936, pp. 28–30) for one of the main ethnic groups of the Pampa, south and southwest of Buenos Aires, particularly those Indians living around the Sierra del Tandil and the Sierra de la Ventana, the Río Colorado, and beyond to the Río Negro and toward the Andean Cordillera.

These same *Puelche* were also known to the Spanish of Buenos Aires as *Serrano* or *Montañeses*, on account of their mountain habitat and meeting place (Lozano, 1924, p. 297; Strobel, 1924, p. 442; Sánchez Labrador, 1936, pp. 29–31; Cardiel, 1922, p. 62, and 1930, pp. 245–247), *Cerrano* (Querini, 1922, p. 64), and likewise were called *Peguenche* by Sánchez Labrador (1936, p. 30—a possible misprint or author's slip). Camaño (1937, p. 114) used the name *Puelche* for the *Araucanian*-speaking peoples of the Pampa; Falkner (1774, pp. 99–100), in a much wider and geographic sense, for all the eastern Pampa and Patagonia tribes, regardless of language—the *Taluhet*, *Diuihet*, *Chechehet*, and *Tehuelhet*—from Córdoba and Buenos Aires to the Strait of Magellan; Poeppig (1835–36, 1: 464), for the *Patagon* east of the Andes from 37° S. lat. to the Strait.

Other names by which the non-*Araucanian*, non-*Tehuelchean* Indians of the Pampa have been known are *Pampa* and *Tehuelche of the North*. *Pampa* was so used by Donavidas (1903, p. 365), Lozano (1873–74, p. 431), Camaño (1937, p. 114), Cox (1863, p. 165), Musters (1871, pp. 70, 304), La Vaulx (1897–98, p. 84), and Milanesio (1898, p. 38)—by the last four at least, to denote the *Puelche* proper. *Pampa* was also used for the Indians adjoining the *Huarpe* and extending to the Atlantic coast (Ovalle, 1888, 12:177–179); for some of those in the vicinity of Buenos Aires (Vásquez de Espinosa, 1942, p. 693; Querini, 1922, p. 64; Sánchez Labrador, 1936, p. 29); and in a broader sense, to include all Pampa-dwelling tribes, regardless of language, by Sánchez Labrador (1936, p. 29) and Dobrizhoffer (1822, 1:130), both of whom consider the name a geographic one, not an ethnic one. The name *Tehuelche of the North* was used for *Puelche* by Cox (1863, p. 165).

There are still other complications (cf., e. g., Lehmann-Nitsche, 1923 a, p. 26), but the foregoing are the main ones. Lehmann-Nitsche (1923 a) endeavored to interpret and identify the units in Falkner's elaborate system of tribal subdivision and nomenclature, but most of the system defies exact analysis, even if Lehmann-Nitsche's *Het* language be accepted as proven. Falkner was certainly mistaken as regards some units of his system; but separating all fact from all error in it is a well-nigh hopeless task, at least in the present state of our knowledge. The Falkner problem, like a good many others connected with Pampean linguistics, culture, and nomenclature, will be solved, if ever, only by intensive field work in the culture and linguistics of surviving Indians in southern Argentina, with perhaps a little help from still hidden and unpublished archival material.

About the same may be said of the *Het* family which Lehmann-Nitsche (1923 a) believed he had isolated, as a fourth linguistic family spoken on the Pampa in the 18th century, in addition to *Araucanian*, *Tehuelchean* (*Chon*), and *Puelchean*. With great skill and originality, he drew upon both the literature, especially Falkner, and upon his own linguistic field work, to support his thesis, and was able to present a very respectable amount of evidence for it. Falkner's use of the nomenclatural ending *het*, as meaning "people," is certainly suggestive of the existence in his time on the Pampa of a language that was neither *Araucanian* nor *Tehuelchean* nor *Puelchean*. Nor could Lehmann-Nitsche identify from field studies or the sources a certain number of words in Falkner as belonging to any one of these three tongues; and so concluded, if the present writer interprets his procedure correctly, that they belonged to the *Het* family.

But on the other hand, it seems strange that if there had been such a fourth family language in use at the time, nothing explicit should have been written about it in the numerous extant letters and reports of the missionaries who had direct personal contact with the Indians of the area or who had been in close touch with others who had had such contact. Camaño, whom Fúrlong (1938 a, p. 37) calls "el más notable lingüista" among the Jesuits of the Río de La Plata region, makes no reference to such a fourth family, nor does Sánchez Labrador; nor does Hervás, who drew upon the knowledge of Jesuit missionaries acquainted with the region and with its peoples. On the contrary, they imply that there were three and only three family languages spoken in the area of the Pampa south and southwest of Buenos Aires down through Patagonia to the Strait. Then, too, the data from Falkner, arresting though they may be, are nevertheless rather meager, where there is question of positing a whole new linguistic family. And Falkner's work, in other respects, is open to much justified criticism on the score of looseness.

Querini (1922, pp. 64–65) recorded that the *Pampa* of the missionary foundation of the Reducción de la Concepción, established in 1740 near the mouth of the Río Salado about 100 miles southeast of Buenos Aires, and the *Serrano* of the Reducción de Nuestra Señora del Pilar, established in 1747 farther south near the present Mar del Plata, had each their own language. This might suggest two non-*Araucanian*, non-*Tehuelchean* languages spoken in the region south of Buenos Aires. But Strobel, who had some practical knowledge of the languages concerned (Fúrlong C., 1938 a, pp. 88, 96, 98), stated (1924 (1740), p. 443): ". . . the language of the Serranos . . . differs from that of the Pampas, as German does from Flemish." He also had remarked just previously that the *Serrano* "are kin of our Pampas Indians, since ties of blood bind them together." Strobel's testimony suggests the interesting possibility—it cannot be called more—that the *Het* tongue, if it existed at all as a separate linguistic entity, may have been one of the two related languages referred to by Querini and Strobel.

All in all, as the evidence stands at present, it would seem wiser to reserve judgment on the question of the *Het* family. We can only express the hope that the urgently needed field studies may still be made to clear up this as well as other pending problems of Pampean and Patagonian anthropology.

Field work cannot help, but possibly existing archival material might help, in clearing up another problem of the area, namely, the relation of the *Puelche* to the *Querandí*. We may best approach this problem by starting with the better known and working toward the less well known.

Our first definitive linguistic identification of the *Puelche* comes from the short vocabulary thereof gathered and published by D'Orbigny. At the time of his 8-month stay in the lower Río Negro region in 1829, the *Puelche*, according to him, had their habitat between the Río Negro and the Río Colorado, between 39° and 41° S. lat., where they had resided "for more than a hundred years previously," but especially on the banks of the Río Colorado (D'Orbigny, 1835–47, 4:221). This would place them in the area as far back as the first half of the 18th century. According to the Jesuit missionaries (cf. supra), in the middle 18th century this area was inhabited chiefly by non-*Araucanian* non-*Tehuelchean* "*Serrano*" or "*Montañeses*," known also at the time as "*Puelche*." The identity of both habitat and name establishes a fair probability, at least, that the mid-18th century "*Serrano*" were *Puelche*, that is, *Genakin* proper.

Further, according to the previously cited explicit testimony of Strobel, who from his first-hand contact with the peoples concerned and from his knowledge of their languages was certainly in a good position to know what he was talking about, the "*Serrano*" tongue was of the same linguistic family as that of the "*Pampa*" of Buenos Aires, that is, of the Indians living north of the *Serrano* and nearer to Buenos Aires. These "*Pampa*" would therefore have been *Puelche*-speaking.

Finally, there are some fairly good reasons for thinking that these "*Pampa*" of Buenos Aires and vicinity were no other than the Indians earlier known as *Querandí*.

As far back as the middle 18th century the "*Pampa*" of the Buenos Aires region were explicitly identified by Lozano (1924, p. 296), with the *Querandí:*

"The nation of the Pampas was called at the time of the Conquest Querandies, and dominated all the region that Buenos Aires now occupies, extending their power toward the south and the west."

(Cf. also: Lozano [ca. 1745] 1873–74, p. 431; Hervás, 1800–05, 1:131.) This explicit report is corroborated by the less explicit statement of his contemporaries and confrères, Querini and Camaño. According to Querini (1922, p. 64), who with Strobel founded the Reducción de la Concepción among the "*Pampa*" in 1740, these Indians were "nomadic people who from the first entrance of the Spaniards upon the conquest of these provinces gave them [the Spaniards] much trouble." According to Camaño (1937, p. 114): "The Pampas have always been known in Buenos Aires, and in Córdoba; they traded with the Spaniards; they worked as hired laborers on the Spaniards' country estates."

In how far may we accept these statements as they stand? On the one hand, Lozano was, many years later, taken sharply to task by Camaño (1937, p. 114) for certain grave misconceptions regarding the ethnic relations of some of the Indians around Buenos Aires. On the other hand, as regards the point under discussion, Camaño is in agreement, as far as he goes, with Lozano. Then, too, Lozano, as official historian of the Jesuit missionary province of Paraguay, including the Pampa, had at his command a wealth of archival material. Further, Lozano, Querini, and Camaño were all in personal touch with their missionary confrères as well as with the colonists of the area. Lozano and Querini had come from Europe to Buenos Aires and Córdoba as early as 1717. Lozano was at Córdoba from 1717 to 1723 or 1724, and at Santa Fé until the end of 1727. Querini was at Córdoba for some years from 1717 on and was then transferred to Buenos Aires, where we find him in 1729 (Fúrlong C., 1930, pp. 8–24; 1938, pp. 87–88). In the encomienda list of the jurisdiction of Santa Fé, drawn up at Buenos Aires in 1678 by Gayoso (1897, pp. 176, 178–179), a number of the Santa Fé encomienda Indians of the time were designated as *Querandí*. At least some of these *Querandí* must have survived some years, until toward the end of the century or beyond—within a couple of decades of the 1710's and 1720's. Lozano and Querini, therefore, were reporting, not a nebulous tradition harking from the remote past and about a distant people, but one concerning an Indian group in close contact with the colonists, as is clear from Camaño's statement, and well known to and personally remembered by colonists still living in Lozano's and Querini's day.

Then, too, the territory earlier ascribed to the *Querandí* was about the same as that occupied in the middle 18th century by the "*Pampa*." (Cf. for *Querandí* Rui Díaz de Guzmán, 1835–37, pp. 10–11; reprint in full of source material in Lothrop, 1932, pp. 197, 201–204, 213; detailed discussion of habitat by Canals Frau, 1941; for "*Pampa*," sources cited infra.) The *Querandí* were described by the early writers as a numerous people; Schmidel (1567, 2 verso, cf. 3 recto) reported a population of about 3,000, not including women and children, in 1535 around what was later the site of Buenos Aires. There is evidence of wars and pestilences in the area, but of none so severe as to lead to total extinction; in fact, *Querandí* certainly survived until 1678, as previously noted, and no doubt until at least near the end of the 17th century. They were driven from the gates of Buenos Aires in 1580, but in the 17th and far into the late 18th century there was abundant food on the Pampa in the form of feral horses and cattle as well as of wild game. The culture attributed to the *Querandí* agrees in practically all diagnostic respects with that of the later "*Pampa*" of Buenos Aires. The *Querandí* were described as taller than the Germans but not so tall as the *Tehuelche*, a description which, so far as it goes, tallies with that given in 1772 by Sánchez Labrador (1936, p. 31) of the "*Pampa*." Archeologically, there is indication in the *Querandí-Pampa* region of only minor cultural differences. (Cf. Archeology of the Pampa, present volume.) And the disappearance of the name *Querandí* from contemporary literature, after the last part of the 17th century has no particular importance for our problem. The name was one derived from *Guaraní* (Outes, 1897, p. 27), not one the *Querandí* called themselves; while, according to Vásquez de Espinosa (1942, p. 693), writing in 1628 or 1629, the bolas-using Indians some 16 leagues from Buenos Aires—from the location, more probably *Querandí*—were those early called *Pampa*. (Cf. also Canals Frau, 1940–42, pp. 37–38, on "que" in caciques' names in Garay's repartimiento of 1582 as possibly equivalent to *Puelche* "ken.")

In the foregoing chain of evidence—*Puelche*=*Serrano*=*Pampa*=*Querandí*—the second link is the strongest, the first and third less strong. While a chain is only as strong as its weakest link, the evidence does appear to give some fairly good ground for the identification of the *Querandí* as *Puelche*-speaking. But in any case, there is no positive scientific ground whatever, as our evidence stands at present, for assuming that *Querandí* was a distinct linguistic family.

Puelche territory.—What territory and population we attribute to the *Puelche* prior to D'Orbigny's time, 1829, will depend largely upon the view we take of the *Het* and the *Querandí*-"*Pampa*-" "*Serrano*"-*Puelche* problems.

To his *Het*-speaking Indians of the Pampa of the mid-18th century, Lahmann-Nitsche, relying mostly on Falkner, ascribed chiefly the belt inland from and flanking the Atlantic coast from near the Río Negro to well north of the Río Colorado (1923 a, pp. 49, 60, map opp. p. 18).

In the early 17th century, the *Querandí* territory appears to have included roughly about what we know today as the Humid Pampa. (Cf. Rui Díaz de Guzmán, 1835–37; Lothrop, 1932 b; and especially Canals Frau, 1941 b, previously cited.) The "*Pampa*" of Buenos Aires occupied the region south and west of the city and its adjacent hacienda belt in the 17th and mid-18th centuries (cf. sources cited supra). In the middle 18th century, the "*Serrano*" lived south and southwest of the "*Pampa*," around the Sierra del Tandil and Sierra de la Ventana, and extended down as far as the Río Negro and as far west as the foothills of the Andes (Cardiel, 1922, p. 63; Sánchez Labrador, 1936, pp. 29–30; cf. Lozano, 1924, p. 296), with a chief center on the Río Neuquén or Río Limay west of their junction. (Cf. Cardiel's 1747 map in Fúrlong-Outes, 1940; Falkner, 1774, pp. 26, 80, and map.)

Our earliest definitive location of the *Puelche* is that given by D'Orbigny (cf. supra) for the year 1829, between the Río Negro and the Río Colorado, especially the latter region. Cox (1863, p. 165) located one band of *Puelche* at the mouth of the Río Negro; other *Puelche*, mixed with Argentine *Araucanians*, in the west from the Río Limay to the Río Chubut. Musters (1871, p. 70; 1872, p. 194) in 1869–70 found *Puelche* between the Ríos Negro and Chubut, while several clans were living on the plains north of the Negro; from these centers they raided up as far as the province of Santa Fé as well as to Córdoba and Mendoza. Moreno (1879, p. 445) found at the mouth of the Santa Cruz River a camp made up mostly of *Puelche*.

Thus a southerly drift of the *Puelche* occurred after the time of D'Orbigny, a continuation, if our provisional identification of the *Puelche* with the *Querandí* be correct, of an earlier southerly drift that probably began with the founding of Buenos Aires in 1580 and with the establishment of regular lines of land communication between Buenos Aires and Santa Fé, Córdoba, and Mendoza.

Puelche population.—Population statistics for the early *Puelche* are none too definite. The *Querandí* were consistently described as a numerous people—more than 3,000 adult males in 1535, if we can accept Schmidel's statement. By the middle of the 18th century, we get much lower numbers. Cardiel's *Serrano*, probably *Puelche*, numbered in all only 100 to 200 men able to bear arms (1922, p. 63), but it is not clear whether this number includes all the then existing *Puelche*. Lozano (1924, p. 296) calculated the number of "*Picanche*" in the provinces of Tucumán and Cuyo, some of whom were probably *Puelche*, at 70 families in all. Sánchez Labrador (1936, p. 43) stated that the "*Pampa*" of

Buenos Aires Province numbered about 400 families of an average of 5 persons each, while in the Córdoba and Tucumán districts there were only 50 families; but perhaps not all of these were *Puelche*.

D'Orbigny (1835–47, 2:268, 4:12) estimated the population of the *Puelche* in 1829 at 500 or 600 souls. Musters (1872, p. 205) believed that the number of *Puelche* south of the Río Negro numbered "perhaps under six hundred." In 1915–16, 10 to 12 *Puelche* still survived in the lower Río Negro region (Lehmann-Nitsche, 1924 a, p. 8). A few "*Pampa*," by which are apparently meant *Puelche*, were living around 1925, according to Fasulo (1925, pp. 111, 114, 141), in Neuquén and the western part of La Pampa Territory; and a few *Puelche*, at least 10, are still living in Chubut Territory (Harrington, 1943, p. 3).

Recurrent epidemics of smallpox, in the early (Lozano, 1924, p. 296; Falkner, 1774, pp. 98–103), middle (Querini and Strobel, 1924, p. 444), and late (D'Orbigny, 1835–47, 4:221) 18th century, largely accounted for the great reduction in *Puelche* population during the period. Lozano (ibid.) also mentions the part played by murders committed during drunken brawls; various writers, wars with Whites and Indians; D'Orbigny (ibid.), daily attacks by the Argentine *Araucanians*. No doubt there were other causes, but we lack specific information thereupon.

HISTORY OF INVESTIGATION

The post-Magellanic history of the Patagonian and Pampean hunters may be divided into three main periods: an early one, 1520 to circa 1725, from first White contact to the *Araucanian* invasion and the acquisition of the horse; a later one, circa 1725 to 1883, the date of the closing of the military campaigns which finally broke the power of the Indians of the Pampa and drove many or most of the survivors south and southwest of the Río Negro; the recent one, 1883 to date, the era of decline. In the present paper we shall for convenience refer to the natives of these periods as the "early" (*Tehuelche*, *Puelche*, and so forth), the "later," and the "recent," respectively.

Early period, 1520–ca. 1725.—First European contact with these southern hunters was that of Magellan (narratives of Pigafetta, Maximilianus Transylvanus, Albo, Herrera) in 1520 with the *Tehuelche* at Port San Julian on the Atlantic coast of Patagonia. During the following 150 years, eight other expeditions encountered the *Tehuelche:* 1526, Loaisa (narratives of Urdaneta, Oviedo); 1535, Alcazaba (Mori, Vehedor); 1558, Ladrillero; 1578, Drake (Cliffe, Cooke, John Drake, Famous Voyage, Fletcher, Nuño da Silva, World Encompassed); 1580, 1584, Sarmiento (Sarmiento, Hernández); 1586, Candish (Pretty); 1599, Noort; 1670, Narbrough, and Wood. Earliest contact with the *Querandí*, farther north, who may have been the ancestors of our modern *Puelche* (cf. supra), was Sebastian Cabot's (Ramírez, Cabot, Oviedo) in 1526. (See details, Lothrop, 1932, pp. 201–202.)

Meanwhile, the Spaniards in Chile were in sporadic touch from the 1540's on with the Pampean and Patagonian hunters nearer the Andes, whom they called "*Puelche*," "*Poya*," and "*Patagon*." Such contact was: Economic, through trade and encomienda labor (Rosales, 1877–78, 1:469); military, through expeditions to and raids by "*Puelche*"; missionary, a little by Rosales (one or two visits between 1650 and 1653), more by Mascardi, 1670–73, and his successors, 1703–14, at Lake Nahuel-Huapí. (Cf. details and sources assembled by Fonck, 1900; Latcham, 1929–30; and Vignati, 1939 a.)

All these relationships, however, have netted us very meager anthropological information, and for the peoples of the heart of the Pampa region practically none.

Later period, ca. 1725–1883.—The beginnings of this period in the first half of the 18th century were marked by three very significant events: the deployment of the *Araucanians* out over the Pampa, the acquisition of the horse by the Patagonian and Pampean tribes, and the founding of the Jesuit missions among them.

The deployment of the *Araucanians*, begun before the close of the 17th century, gathered great headway shortly after the opening of the 18th, and carried them almost to the gates of Buenos Aires. In the same period, owing apparently in large measure to *Araucanian* influence, the Patagonian and Pampean tribes, previously foot Indians, took to horsemanship, and also began to be profoundly influenced by general *Araucanian* culture.

As for the *Tehuelche*, after 1670, when seen as foot Indians by Narbrough and Wood at Port San Julian, there is a long gap of 71 years in our sources. When next seen, in December 1741, near the eastern end of the Strait of Magellan by Bulkeley and Cummins, they were riding horses. With the horse came many other new cultural traits (Cooper, 1925, pp. 408–409). The chief explorers (with dates of contact) to whom we owe first-hand data on the *Tehuelche* until the close of the period are:

Eighteenth century: Morris, 1742–43; Cardiel and Quiroga, 1746 (Lozano, *in* de Angelis, 1836–37, vol. 1); Barne, 1753; Byron, 1764; Wallis, Carteret, 1766; Duclos-Guyot, 1766 (*in* Pernety, 1769, vol. 2; 660–662); Bougainville, 1766, 1767; Juan de la Piedra, 1779; Viedma, 1780–83; Vargas Ponce, 1785; Tafor, Pineda, Peña, 1789; Coleman, 1793 (?).

Nineteenth century: Muñiz, ca. 1826; D'Orbigny, 1829; Fitz-Roy, 1833; Coan, 1833; Wilkes, Hales, 1839; Gardiner, 1842; Bourne, 1849; Cox, 1862–63; Musters, 1869–70; Berg, 1874; Moreno, 1874, 1876–77; Beerbohm, 1877; Lista, 1878–80; Roncagli, 1882; Spegazzini, ca. 1884. The list is long, but the data are relatively scant.

The missions of the Jesuits to the peoples of the Pampa south of Buenos Aires, 1740 to 1753, gave us a considerable volume of anthropological information on the mixed *Puelche* and *Araucanian*-speaking peoples of the Pampa proper and, to a lesser extent, on the Patagonians. In the writings of Fathers Dobrizhoffer, Lozano, Cardiel, Quiroga, Strobel, Camaño, Rejón, García, Querini, and particularly Falkner and Sánchez Labrador, we get for the first time an insight into the cultural and linguistic lay of the Pampean area and into its relations with the Patagonian and *Araucanian*. (Most of cultural data are given in Sánchez Labrador, 1936; Falkner, 1774; Pennant, 1788; and Fúrlong Cárdiff, 1938 a).

Some very valuable anthropological information also was contributed by the 19th-century Protestant missionaries: Coan, 1833–34; Gardiner, 1842, 1845; Schmid and Hunziker, 1859–63. (For details, cf.: Gardiner, 1852; Marsh and Stirling, 1874; Coan, 1880; Outes, 1926 b, 1928 c.)

The period came to an end with the military campaigns under Generals Julia Roca and Conrado Villegas in 1879–83, which completely defeated and disorganized the Indian confederates, cleared the Pampa region almost entirely of its Indian inhabitants, and drove most of the survivors beyond the Río Negro and into Neuquén.

Recent period, 1883 to date.—Settlers, following the frontier, have taken up most of the country from the northern limit of the Pampa to the Strait of Magellan. The surviving Indians are found scattered here and there in small groups, mostly south of the Río Negro. The process of Europeanization has been in full swing; the native culture has largely been replaced. Relatively very little field work has been done among the survivors during the last 60 years. The Salesian missionaries, Fathers Milanesio (1898, 1917) and Borgatello (1924), have given us some new light direct from the toldos of the natives. A great deal of attention has been devoted by a corps of Argentine scholars—Canals Frau, Fúrlong C., Lehmann-Nitsche, Outes, Serrano, Vignati, and others—and by Fonck and Latcham of Chile, to critical surveys and interpretations of published and manuscript data, a work still in active progress.

Selected annotated lists of the more important of our very numerous first-hand sources on the culture of the *Tehuelche*, *Poya*, and *Puelche* will be given infra under Culture at the beginning of the sections on the culture of the respective three tribes.

There are few more urgent tasks facing anthropological science than thorough studies, as thorough as possible under the circumstances of native cultural disintegration, of the surviving *Tehuelche* and *Puelche*, studies made directly in the field, from information that may probably still be gotten from older members of the fast-dwindling remnants of these once numerous and powerful tribes.

CULTURE

Our cultural data are fullest and most clearly identified for the *Tehuelche*, whose culture will be treated first. Next will follow a short account of the *Poya.* Finally, we shall deal with the culture of the *Puelche.*

In the case of the *Puelche*, were we to confine ourselves to those data which are unmistakably and beyond all possibility of doubt attributable to people speaking the *Puelche* language, we should have to rely almost exclusively on D'Orbigny's extremely brief account. For reasons previously given, we seem to be on fairly safe ground in concluding that the *Puelche* of D'Orbigny's day were the linguistic descendants of Sánchez Labrador's "*Puelche*" ("*Pampa*," "*Serrano*") six or seven decades earlier. If not the linguistic descendants, they were almost certainly the cultural ones. We shall use, therefore, the data from Sánchez Labrador, where we can be sure he is speaking of cultural phenomena peculiar to his and our *Puelche* or shared by them with the contemporary *Tehuelche* and/or Argentine *Araucanians.*

For those who hold with Lehmann-Nitsche to the former existence of a *Het* family on the Pampa, what we shall describe as *Puelche* culture would connote, so far as the description rests on data from Sánchez Labrador, *Het* culture or *Het-Puelche* culture.

Less use can be made of Falkner than of Sánchez Labrador, as the former gives fewer details and discriminates less between *Araucanian*, *Tehuelche*, and *Puelche* cultural features.

TEHUELCHE CULTURE

On *Tehuelche* culture the very early sources prior to 1670 yield only the most meager information, and this almost exclusively regarding the more obvious elements of material culture. About the best of these early sources, such as they are, are Pigafetta (1906) and Fletcher (1854).

The most important later sources are Viedma (1837 b) and Musters (1871, 1872).

Next in importance to these last three publications may be listed: Borgatello (1924), Bourne (1853), Coan (1880), Moreno (1879), Muñiz (1917), and D'Orbigny (1835–47). Some good material is also found scattered through the works of: Cox (1863), Falkner (1774), Fitz-Roy (1839, dependent largely on Falkner), Gardiner (1852), Lista (1879 a, 1879 b), Pennant (1788, data derived from Falkner in England), Reiher (1920), Roncagli (1884), Sánchez Labrador (1936), and Spegazzini (1884). On the linguistic relations of the *Tehuelche*, Lehmann-Nitsche (1913) is basic, while Cardiel (1938) and Camaño (1937) were important pioneer contributors.

Where it is possible or advisable to distinguish between the culture of the foot *Tehuelche* before 1670 and that of the horse-using *Tehuelche* after 1741, in the following account of *Tehuelche* culture the terms "early" and "later" will be used respectively.

SUBSISTENCE ACTIVITIES

Food.—The chief foods of the *Tehuelche* were guanaco and ostrich meat, the latter being generally preferred as less lean. Armadillos, skunks, tuco tucos (*Ctenomys* sp.), and huemuls were also eaten (Roncagli, 1884, p. 771; Ibar Sierra, 1879, p. 54), but dogs were not (Fitz-Roy, 1839, 2:150). Grease, fat, and marrow were delicacies, as were also ostrich eggs. The later *Tehuelche*, ordinarily at least, avoided fish (Coan, 1880, p. 60; D'Orbigny, 1835–47, 2:100; 4:101; Bourne, 1853, p. 147; Musters, 1871, p. 201; Ibar Sierra, 1879, pp. 54–55; Borgatello, 1924, p. 16), not, apparently, from magico-religious motives; but near the coast the early *Tehuelche* consumed fish and mollusks (Oviedo, 1851–55, 2:40, 43, 45), the later *Tehuelche* some shellfish (Gervaise, *in* Dumont d'Urville, 1842, 1:278).

While meat was the basic diet, considerable quantities and varieties of plant food were eaten. By the early *Tehuelche* certain roots, "resembling parsnips," were eaten raw or cooked, and made into flour (Pigafetta, 1906, 1:50, 60, 78; Oviedo, 1851–55, 2:40, 43, 45); by the later *Tehuelche*, roots, roasted and made into flour; "wild potatoes," dug up from underground and eaten raw or cooked; seeds, "like mustard," ground between two stones; "a kind of spinach" and a few other plants; "wild dandelions"; barberries, wild currants, strawberries, piñoes (*Araucaria* sp.), apples (Juan de la Piedra [1779], 1837, 5:77; Coan, 1880, p. 119; Dumont d'Urville, 1842, 1:154–155, 279; Schmid, 1912, p. 24, with native names of six or seven roots and plants eaten; Musters, 1872, p. 199; Spegazzini, 1884, p. 238; Vignati, 1936, p. 598: cf. Spegazzini, 1884, p. 238; Outes, 1905, p. 253; and especially Vignati, 1936, p. 598, and 1941, for botanical identifications). The later *Tehuelche* chewed the gum which exuded from the incense bush (Musters, 1872, p. 199; Schmid, 1912, p. 28; Spears, 1895, p. 159: cf. details of method of chewing in Hudson, 1926, pp. 125–126), as a pastime and dental cleanser. According to Vignati (1936, p. 602), some of them chewed the leaves of *Chuquiraga avellanedae* "como excitante nervioso."

The *Tehuelche* practiced no agriculture at all, and the early *Tehuelche* had no domesticated animals except the dog. They seem to have had at least two kinds of native dog, a larger long-haired one and a smaller one somewhat resembling the Scotch terrier (Cabrera, A., 1934, pp. 88–91; Spegazzini, 1884, pp. 232–233; Allen, 1920, pp. 476–478); a third kind, resembling the greyhound, was probably a cross between the Spanish galgo and the first of the above two (Cabrera, A., 1934, pp. 88–91). The smaller dogs were used mostly as pets, the larger ones in hunting.

Horses.—The horse was introduced after 1670, and before 1741, probably some time around 1725, from the Argentine *Araucanians*, or perhaps, as D'Orbigny appears to have believed (1835–47, 2:100), from the *Puelche*. Its introduction was accompanied and followed by very great changes in general *Tehuelche* culture (Cooper, 1925, pp. 408–409, details), including the addition of horse meat to the diet.

Hunting.—The early *Tehuelche* used tame young guanacos as decoys in hunting guanacos (Pigafetta, 1906, 1:52; Mori, [1535], 1889, p. 320), and rhea plumage as head and body camouflage to approach within killing distance of rheas. Fletcher (1854, pp. 41–42) reported the use of nets in rhea hunting. Later *Tehuelche* hunters commonly scattered, circled, and closed in to hunt the guanaco and the rhea (pl. 40, *top*); in the drive, pumas were often caught in the circle and killed (pl. 40, *bottom*). The dogs were of great aid in hunting. Our sources mention no snares or deadfalls as used for any animals. (For details on hunting, cf. Schmid, 1860, pp. 363–364, 366, and Outes, 1928 d.)

Food preparation and storage.—Jerked guanaco meat, dried or smoked and pounded, was mixed with rhea or other grease to make pemmican, which was stored for use in winter or in stormy weather (Coan, 1880, p. 84). Fat, marrow, and internal organs of guanaco, such as livers, lungs, kidneys, and hearts, were commonly eaten raw; otherwise food was roasted or baked—later boiled in iron pots. Meat was often eaten only slightly roasted. Heated stones were put in split rhea, young guanaco, armadillo, and skunk carcasses, and the carcasses were then sewn up and placed on the fire to roast (Coan, 1880, p. 111; Moreno, 1879, p. 254). One end of the rhea egg was punctured, a little of the white taken out, and the egg set vertically on a slow fire to cook (Moreno, 1879, p. 359). Salt was mixed with blood, or used for seasoning meat. The blood of freshly killed guanaco was drunk raw (Coan, 1880, p. 119; Bourne, 1853, p. 71). A nonfermented drink was made of barberry juice. Maté, of later introduction, was very popular.

As food receptacles and eating utensils were used: Valves of mollusks as drinking cups, and, in one early instance (Oviedo, 1851–55, 2:41) "skin," as among the *Ona* (p. 113); in later times, wooden plates and platters, bladders as water containers, wooden or horn spoons, and armadillo shells as broth platters. There were no stated mealtimes. The *Tehuelche* avoided gluttonous eating.

CAMPS AND SHELTERS

Permanent villages were lacking. Some use was made of caves as dwellings in parts of prehistoric Patagonia, perhaps by *Tehuelche*. A skin windbreak very like the modern *Ona* one (p. 110) was apparently used by some of the early *Tehuelche* (Oviedo, 1851–55, 2:41, and lam. 1, fig. 1; cf. Ladrillero, 1880, p. 499, and Cooper, 1925, pp.

414–415), but the skin tent with the two compartments as described by Maximilianus Transylvanus (1523, p. Av) suggests more the typical *Tehuelche* toldo of later times. This typical toldo (pl. 37, *bottom*; pl. 38, *bottom*, *right*) was made of three or more rows of stakes, diminishing in height from front to rear, and covered with guanaco skins sewn together and smeared with a mixture of grease and red paint. The inmost section was divided by skin screens into compartments, each married couple having their own compartment. The open side, facing east (to leeward), was sometimes, in winter or in bad weather, nearly closed with other skins. The fire was made near the center of the open side, a little within. Skins laid on the ground were used to sleep upon; covers were also of skins The toldo, according to Spegazzini (1884, p. 230) usually housed a man and his entire family, or an extended family consisting of grandparents, children, and grandchildren, with their wives and offspring; while sometimes each of a man's wives and sons had a separate toldo. Apart from special gatherings, camps did not contain more than about 20 toldos; more commonly they contained fewer.

DRESS AND ORNAMENTS

Clothing.—The early *Tehuelche* men wore a pubic covering, later superseded by the chiripá, and some at least tied up the penis by the prepuce to their belt. (Ladrillero, 1880, p. 498; cf. Pigafetta, 1906, 1:60; Noort, 1905, p. 191.) The early skin moccasinlike footwear, with hay stuffing, gave place among the later *Tehuelche* to the bota de potro (fig. 18, *e*) made from the dehaired skin of a horse's hock or of the leg of a large puma (Lehmann-Nitsche, 1916 b, 1918, 1935). In one post-Columbian burial in Chubut Territory were found two exceptional types of clothing, a piece of shell-disk spangled mantle and a sandal (Vignati, 1930, pp. 12–19, cf. citations, pp. 20–32, of sources on mantles and footwear). Guanaco-skin overshoes were sometimes worn (Musters, 1872, p. 196). Men's other garments were (pl. 39, *top*): A mantle of sewn skins of young or unborn guanaco, or of skunk, fox, or wildcat (Viedma, 1837 b, p. 68; Muñiz, 1917, p. 214; Musters, 1872, p. 196), reaching to or below the knee, secured by a belt, painted with polychrome geometric designs (fig. 19; cf. Lothrop, 1929), ordinarily worn with the hair inside, but sometimes in hot weather with the hair outside (Coan, 1880, p. 75); a woven woolen fillet; sometimes a poncho. The women's dress (pl. 39, *top*) consisted of: An apron pubic covering (cf. Vignati, 1931 e); an undergarment reaching from the armpits to the knees; a mantle like the men's, but fastened at the breast or shoulder; the bota de potro, when on horseback; sometimes a flattish straw hat.

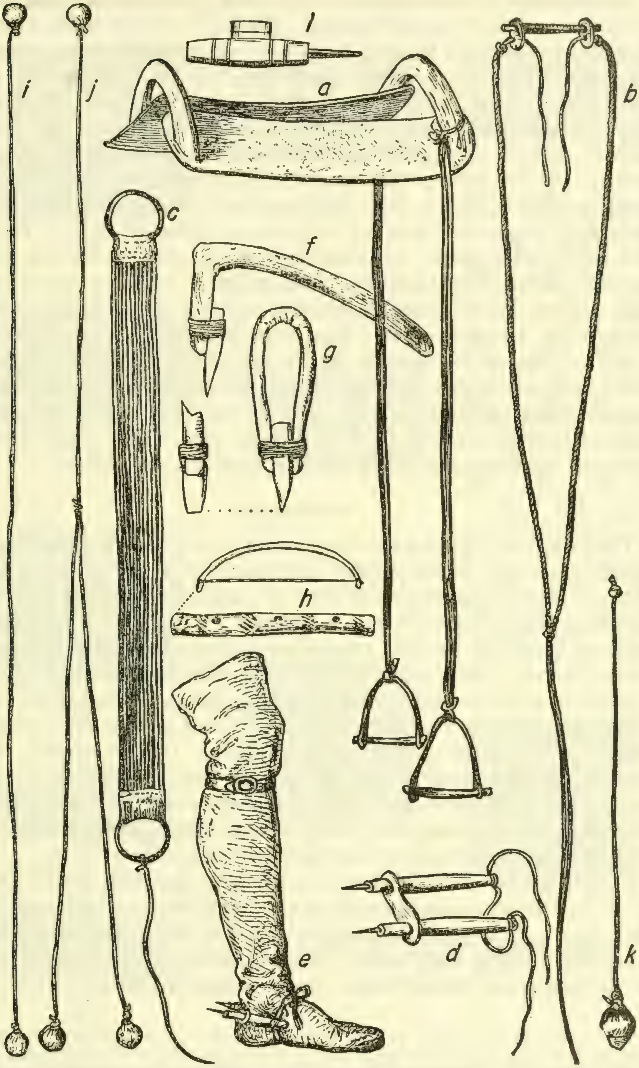

FIGURE 18.—*Tehuelche* arms and instruments. *a*, Saddle and stirrup; *b*, bridle; *c*, girth; *d*, spurs; *e*, boots with spurs; *f*, adz; *g*, scraper; *h*, musical bow; *i*, ostrich bolas; *j*, guanaco bolas; *k*, bola perdida; *l*, pipe. (After Musters, 1871, opposite p. 166.)

Ornaments.—Adornment may be summed up as follows: Head deformation, perhaps not intentional. Pegs of wood or bone, 3 to 4 inches (7.5 to 10 cm.) long, in the perforated nasal septum and lower lip (single early report, Drake expedition, 1578, *in* Fletcher, 1854, p. 50; cf. *Poya* culture, infra, and archeological data in Lehmann-Nitsche. 1924). Hair: Early, men tied hair ends up with fillet, and wore tonsure; women, later, coiffure in two braids, also false hair (King, 1839, 1:18; Beerbohm, 1879, pp. 90–91); brush comb (cf. illustr., Outes and Bruch, 1910, p. 122); facial and bodily depilation with shells. Tattooing by puncture method, on forearm (Musters, 1872, p. 197); formerly in other parts. Smearing body and face with grease; earlier, also with white earth (Ladrillero, 1880, p. 498). Painting: Body and face, various colors—white, black, red, yellow. Face painting with black on the march or on cold days to protect skin (Viedma, 1837 b, p. 81). Personal adornments (pl. 39, *top*): Men—earrings, objects of silver, brass—earlier, bone, stone, and shell necklaces, and feathers; women—brooches, including topu type, earrings (often of *Araucanian* quadrangular or circular plate type), bracelets, finger rings, necklaces, etc., of hammered silver—earlier, necklaces like men's.

TRANSPORTATION

The *Tehuelche* had no dugouts or canoes, so far as ever observed, although they may possibly have had means of ferrying across the Strait of Magellan to the *Ona* country (cf. supra Introduction). They did use, at least the later *Tehuelche*, a crude type of coracle or bull boat, made of hides for ferrying themselves or their impedimenta across rivers (Bourne, 1853, pp. 133–134; Moreno, 1879, pp. 256–257).

With the horse (see supra) came saddles, stirrups, including the toe-stirrup (fig. 18, *a–d;* Viedma, 1837 b, p. 69; Coan, 1880, p. 68), wooden bits, and double-goad spurs (Musters, 1871, pp. 167–169, cuts). The women sometimes rode astride (Macdouall, 1833, p. 79), but usually seated high on the horse's back, with their feet resting on its neck. The *Tehuelche*, when hunting over rocky terrain, often put hide shoes on their horses as a hoof protection (Musters, 1871, p. 130).

At the time of Viedma's sojourn at Port San Julian in 1780–83, one band of *Tehuelche* south of the Río Santa Cruz, who had lost nearly all their horses as the result of a raid by the Port San Julian band, were using dogs to carry their toldos (Viedma, 1837 b, p. 68)—the only recorded instance of *Tehuelche* use of dogs as pack animals.

MANUFACTURES

Weaving.—No basketry is reported. Fillets were woven, but we have no details on the technique. The later *Tehuelche* used an upright loom for weaving guanaco-wool blankets (Coan, 1880, pp. 193–194).

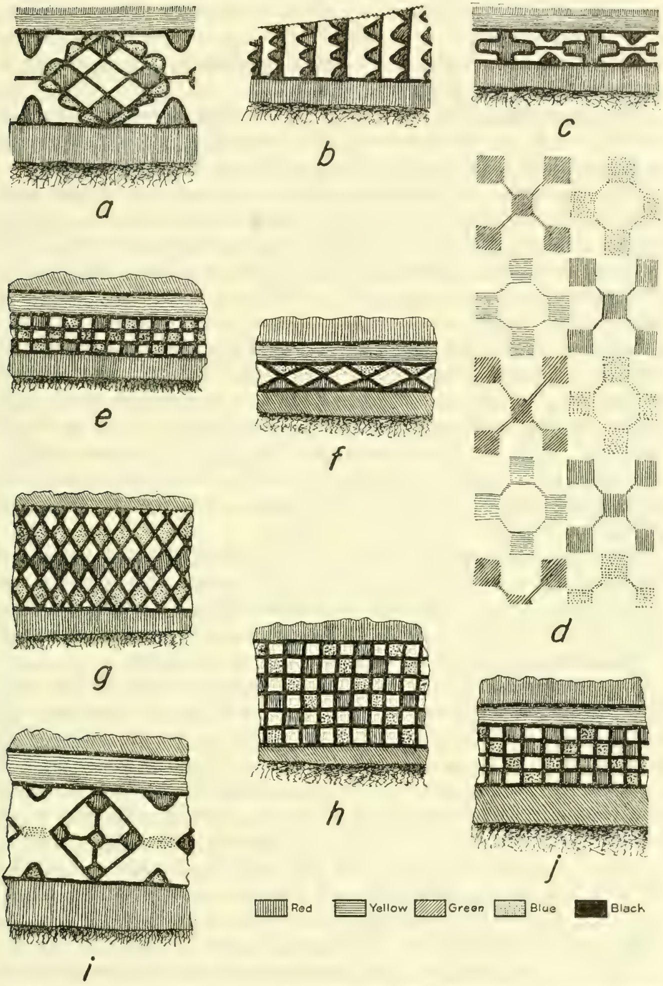
a
b
c
d
e
f
g
h
i
j
Red
Yellow
Green
Blue
Black

Figure 19.—Designs from *Tehuelche* guanaco robe. *a*, three-border pattern; *b*, corner; *c*, one-border pattern; *d*, centers; *e*, *f*, one-border patterns; *g*, *h*, corner patterns; *i*, *j*, three-border patterns. (After Lothrop, 1929, figs. 8 and 9.)

Pottery.—The early *Tehuelche* used very simple and crude pottery (Pigafetta, 1906, 1:50), and pottery occurs archeologically far down the Atlantic coast and inland in *Tehuelche* territory (present volume, p. 20; Lothrop, 1932 b, pp. 194–196); but again there is no information on process of manufacture. Fitz-Roy (1839, 2:172) reported pottery absent from the *Tehuelche* of his day.

Miscellaneous.—The *Tehuelche* did excellent lasso plaiting and saddlery work, and, after the early 19th century, very creditable silversmithing (Muñiz, 1917, p. 214; Bourne, 1853, p. 97, cf. 96).

Skin dressing.—In dressing skins, the women first pegged them down to sun-dry them, then scraped them with flint, agate, obsidian, or glass scrapers. The scrapers (fig. 18, *g*) are hafted by lashing the blade to a bent split sapling (cf. illustr., Outes and Bruch, 1910, p. 121) or by setting it transversely in a block of wood. The skins were next smeared with grease and liver, were kneaded into a pulp, and were softened by hand until quite pliable. A soft-grained stone was also used for scouring. In sewing, an eyeless needle or awl, later made of an iron nail, and thread of guanaco or rhea sinew were used. (On *Tehuelche* skin dressing, cf.: Lothrop, 1929; Bourne, 1853, pp. 98–99; Guinnard, 1864, pp. 68–69; Roncagli, 1884, p. 778; Hatcher, 1903, p. 269. Our most detailed account is Kermes, 1893, pp. 209–210, for "*Pampa*" Indians apparently of Río Negro, probably including *Tehuelche;* he records dehairing with ashes.)

Skin bags were made for holding water (Coan, 1880, p. 53; Gardiner and Hunt, 1852, p. 89; Bourne, 1853, p. 82), paints, etc. Knives were earlier made of stone, and such were still used in the middle 18th century (Sánchez Labrador, 1936, p. 75). A small hand-adz was used in woodworking (fig. 18, *f;* cf. Musters, 1871, pp. 168, 170).

Weapons.—The chief hunting and fighting weapon of the early *Tehuelche* was the bow and arrow, which finally went out of use in the first half of the 19th century (Morrell, 1832, p. 84; Fitz-Roy, 1839, 2:149). The bows are described both as long and as short, with guanaco sinew string; arrows, with cane shafts, heads of stone or bone, and three feathers (Oviedo, 1851–55, 2: 40), carried originally in the hair, fillet headdress, or belt instead of a quiver. D'Orbigny (1935–47, 2:116–117) reported bows 3 feet (90 cm.) long, some use of skin quivers, and slings. The bolas, of the one-, two-, and three-balled types (fig. 18, *i*, *j*, *k*), began to replace the bow and arrow at the time of the adoption of the horse. The lasso, too, was of later introduction.

The lance, bola perdida, European weapons, and armor are discussed below, pp. 153–154.

Fire making.—Ordinarily fire was made by the drill method. Fire making by percussion is recorded by two observers, Coan (1880, p. 50) with two pebbles and Spegazzini (1884, p. 232) with two flints—the former case possibly due to immigrant *Ona* influence (cf. supra).

Fitz-Roy (1839, 2: 172) reported that the *Alacaluf* traded pieces of iron pyrites, used for striking fire, to the *Tehuelche.*

SOCIAL LIFE

Marriage and the family.—Direct information is available only for the later *Tehuelche;* our chief information on the domestic culture of the later *Tehuelche* comes from Sánchez Labrador, Viedma, Fitz-Roy, Musters, and Spegazzini.

Premarital chastity was seemingly rather strictly observed by girls. They were free to choose their husbands. Fitz-Roy (1839, 2: 152) reported that sometimes girls were betrothed while very young [child betrothal?]. Boys married around the age of 20; girls from 15 to 18 or so. The groom gave presents to the bride's father or parents; these presents were in some measure at least a bride-price; the father or parents of the bride also gave presents of equal value, which in case of later separation were the property of the bride (Musters, 1871, pp. 177–178; 1872, p. 201). The girl was brought by her father or the groom to the latter's toldo, where a wedding feast was given, including mares' meat. It was unlucky for any of the offal or meat of the mares to be eaten by the dogs. The shaman sang and gave advice at weddings. Residence was generally patrilocal. According to Viedma (1837 b, p. 74), a "cacique" always married the daughter or sister of another cacique.

Marriage was mostly monogamous. Some men, however, had two wives; rarely three in the later 19th century, but earlier some had "four, five, or even more" (Fitz-Roy, 1839, 2: 152), and even five to eight (Sánchez Labrador, 1936, p. 73). No polyandry is reported (however, see *Poya*, p. 160); nor is either the sororate or levirate.

Wives were generally well-treated as well as loved. Wife beating was very rare. Adultery was not uncommon; in case of unfaithfulness on the part of a wife, her paramour suffered the penalty, not she (Viedma, 1837 b, p. 74). Divorce was uncommon, being usually sought by the wife. A man was not allowed to look toward his father-in-law when in conversation with him (Musters, 1871, p. 184). The aged were respected and well cared for.

Etiquette.—Proper names were not mentioned (Bourne, 1853, p. 150). Hospitality was the rule, to traveling strangers as well as to friends. Certain formalities were observed when two parties approached and came together, including answers to the host's questions before delivering a message (Musters, 1871, pp. 184–185). The relative absence of formalities on entering a tent (Moreno, 1879, p. 226) contrasted with *Araucanian* estiquette in this regard.

Cleanliness of body was considered desirable, and bathing in the river was common; there was also a certain ideal of toldo cleanliness;

but in neither case did practice measure up to ideal, to judge from the abundance of body vermin and from descriptions of toldos. Body lice were commonly eaten.

POLITICAL LIFE

Our best source on political life is Viedma. Musters, D'Orbigny, and Borgatello rank next in order as sources.

There were no sibs, no secret or other societies, and no ruling caste or marked social stratification.

The band.—The basic *Tehuelche* economico-political unit was the band, each with its own headman. There was no peace-time paramount chief of all the *Tehuelche*, or of either of the two great divisions, northern and southern. According to Fitz-Roy (1839, 2 : 131), the *Tehuelche* of his time were divided into four groups or bands of about 400 adults each, each band under its own headman. D'Orbigny, however, who made his observations in 1829 just 4 years prior to Fitz-Roy's visit, states that the *Tehuelche* were divided into a great number of bands (1839, 2 : 97–98)—a statement that is in closer agreement with most of our earlier and more recent sources.

To judge from our scattered data, these bands were usually, though not always, small. In 1749 there came to Pilar mission three *Tehuelche* caciques with 80 toldos, each toldo sheltering 3 or 4 families, and the families averaging 5 persons each (Sánchez Labrador, 1936, p. 119)—thus, about 400-530 souls on the average per cacique. One band met by the Malaspina expedition in 1789 had 60 members in all (Lehmann-Nitsche, 1914, p. 8). Other estimates are: At most 30 to 40 families per band (D'Orbigny, 1935–47, 2 : 97); 5 to 30 families (Spegazzini, 1884, p. 229); never more than 20 toldos found in one camp (Borgatello, 1924, p. 20); and one large band, Mulato's, with over 500 persons (ibid., p. 134).

Some insight into the composition and functions of the band may be derived from Fitz-Roy, D'Orbigny, and later writers. Each of Fitz-Roy's four bands had its own cacique or headman, and each claimed "a separate though ill-defined territory" as its exclusive hunting ground; at times all four bands would foregather in one place; encroachment by members of one band on the hunting ground of another led to battles (Fitz-Roy, 1839, 2 : 131). Each toldería had its own territory, two or three of them on the banks of the Río Negro (D'Orbigny, 1835–47, 2 : 98). Bands were made up of related or friendly families (Spegazzini, 1884, pp. 228–229). Each small band was composed of relatives and friends; each claimed exclusive hunting rights on its own territory, trespass being cause for war, and the most frequent cause (Borgatello, 1924, pp. 19-20).

Much clearer insight into the composition and functions of the band comes from Viedma. Each cacique or headman had "a determined territory under his jurisdiction, no Indian of his group can enter the territory of another headman without seeking the permission of the latter." Trespass without such permission was one of the chief causes of war. An Indian of one band wishing to pass through or tarry in the territory of another band, had to make three smoke signals and await the answering signals before entering such territory. If consent was not given by the cacique, he was commanded to depart forthwith. Trespass without such formality was interpreted as evidence of bad faith, and resort was had to arms (Viedma, 1837 b, p. 73).

Some idea of the size of band territories is given by Viedma. On the Atlantic coast between Puerto de Santa Elena in 40° S. latitude and Cabo Virgenes at the eastern end of the Strait of Magellan near 52° S. latitude, in all a distance as the crow flies of about 850 miles, there were in 1780–83, according to Viedma (1837 b, pp. 65–68), six bands with their respective headmen. The territory of the northernmost of these extended from Puerto de Santa Elena to Puerto de San Gregorio in 45°4′ S. latitude, about 350 miles north to south; the other five averaged about 100 miles of coast each. How far these territories extended inland Viedma does not explicitly state, but presumably well back toward, or perhaps even to, the foothills of the Andes.

The following passage, highly significant for the unique insight it gives into band composition and family land tenure, needs to be quoted in its entirety.

> The cacique is under obligation to protect and aid the Indians of his jurisdiction and territory in their necessities. In this respect he is the more esteemed, has a greater following among them, and is preferred as a cacique, who is more ready to aid them, more liberal, and more intelligent in the chase. For if he lacks these qualifications, they go off and seek another cacique who does possess them, leaving him [their previous headman] alone with his relatives, and exposed to continual invasions from neighbors: *although that family does not thereby lose its right to the* [its] *territory* [italics ours], and in the course of time there will ordinarily be some other person who will reestablish the toldería which his father, grandfather, or brother has lost through misfortune or misconduct. When the cacique grows old and for lack of vigor cannot fulfill the obligations of his office, he relinquishes the command to his successor. [Viedma, 1837 b, p. 74.]

A toldería may be composed of four, five, or more families, each family consisting of a man, his wife and children, and his relatives; this man, who is head or chief of the family, is a sort of subaltern cacique, a subaltern of the cacique who has general charge of everyone and who has right of ownership of the territory (Viedma, 1837 b, p. 76).

The foregoing citations speak for themselves. Attention may merely be called in passing to three points, particularly in the passages from Viedma—the fluidity of band membership, the kinship nucleus of the band, and the system of family hunting grounds very similar to that prevalent among the linguistically related *Chon*-speaking peoples, the *Ona*. (Cf. also on this third point, Krickeberg, 1934, pp. 331–332).

The headman's chief function in peacetime, in addition to the functions mentioned in the preceding paragraphs, was to harangue the band each morning and voice the day's agenda as regarded hunting and traveling. (For a text example of such a hunting exhortation, see Hunziker, 1928 a.) He had practically no authority to issue orders; nobody would have obeyed him. Nor did he act as authoritative judge in disputes. The average *Tehuelche's* attitude appears to have been that of Musters' Indian, Cuastro, who with his dying breath shouted out: "I die as I have lived—no cacique orders me" (Musters, 1871, pp. 80–81, 184). The headmanship was usually, but not always, hereditary, from father to son.

Disputes.—There was no set judicial procedure. Conflicts between men of the band were commonly settled by fist fights, or else with the bolas, the disputants in the latter case being corseleted and helmeted; between women, by tongue lashings, hair pulling, and clubbing (Viedma, 1837 b, p. 81) ; Muñiz, 1917, pp. 212–213) ; often before an interested gathering of their fellow tribesmen and tribeswomen, who abstained from interfering and greatly enjoyed the spectacle, so Viedma (1837 b, p. 81) informs us.

Bloody feuds between bands, occasioned by trespass, horse or woman stealing, or other causes, were common. The *Tehuelche* were far from being pacifists, but rather the contrary. The various bands would sometimes unite, in loose temporary or more lasting confederations, against common enemies—the Argentine *Araucanians*, the *Puelche*, or the Whites. The leaders had considerable influence, depending, it would seem, a great deal upon their abilities and personalities.

WARFARE

The chief fighting weapons of the later *Tehuelche* (on the warlike pursuits, and for that matter on the whole political culture of the early *Tehuelche*, we have practically no information) were the long lance and the bolas, especially the bola perdida, to which were added, when obtainable, metal swords and knives of Spanish provenance, and guns and pistols. D'Orbigny (1835–47, 2: 117) mentions a "dard" [javelin? for hunting?], and Sánchez Labrador (1936, p. 45) states that when an enemy could not be reached with the lance as held it was sometimes thrown at him. Heavy coats of multiple hide and helmets of bullhide were worn in battle. Fitz-Roy (1839, 2:147) reports use of a shield of hides sewn together. Fighting was unorganized, of the individualistic pattern, with much use of surprise and ambush.

Captives were taken, especially women and children. There was no torture of prisoners. Cannibalism—avengeful, gastronomic, magical, or other—was absent.

Mercy killing occurred in the form of premature interment, in some cases where hope of recovery had been given up (Sánchez Labrador, 1936, pp. 56–57). The useless were sometimes abandoned when the band had to be on the move (D'Orbigny, 1935–47, 2:190).

ECONOMIC CULTURE

Ownership.—On land tenure, see supra under Political Life. Ownership of personal property by male and female children, from infancy, was distinctly recognized (Musters, 1871, p. 177). Currency was absent. Barter was common, with other Indian groups and with Whites. Barter by exchange of presents, or something very much like it, occurred (Musters, 1871, pp. 155–156, 242–243). The property of a person was usually buried with him or burned at his death, so there was not much, if any, acquisition of property by inheritance. The *Tehuelche* are reported to have been very honest among themselves. The killers of guanacos and ostriches had certain prior rights to specified parts thereof, but game food was customarily shared generously with others.

Labor.—A woman who made a skin mantle for a bachelor might expect some compensation (Musters, 1871, p. 171). Captives sometimes were kept in sort of drudge slavery (Fitz-Roy, 1839, 2:153; Spegazzini, 1884, p. 237).

Men's chief tasks were: Hunting, fighting, breaking and training horses, making saddles, harness, lassos, and pipe bowls, and doing most of the work of silversmithing. Women's chief tasks were: Caring for the children and the toldo, fetching wood and water, cooking and preparing food, caring for the impedimenta on the move, dressing, sewing, and painting skins, making clothing, and weaving fillets.

LIFE CYCLE

Childbirth and infancy.—All statements on birth, infancy, and education here refer to the later *Tehuelche*.

Shortly after birth the child was smeared with damp gypsum (Musters, 1871, p. 176). According to Moreno (1879, pp. 445–446), marital abstinence was practiced from conception until about a year after birth. Prichard (1902, p. 92) states that children's heads were so bandaged as to produce [intentionally?] flattening of the back of the skull. Two types of cradle were used: a flat cradle, apparently of ladder type (Vignati, 1938 a, pp. 73–74), to which the infant was tied, and which could be swung from the roof of the toldo by means of thongs attached to its four corners; a curved wicker cradle (fig. 20) placed, with the child in it, on the horse's haunch behind the mother when she traveled horseback (cf. Vignati, 1938 a, for details). Parents were often known by the name of their child (Musters, 1871, p. 177).

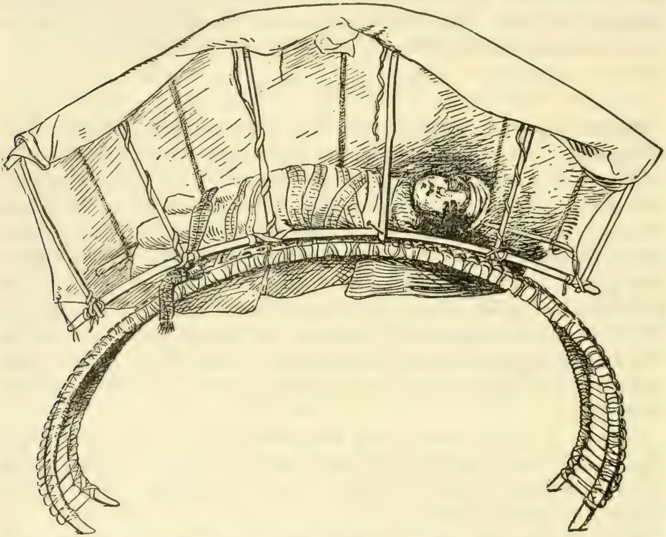

FIGURE 20.—*Tehuelche* child's cradle for use on horseback. (After de la Vaulx, 1901, p. 169.)

At the birth of a child, wealthy parents summoned the medicine man, who painted himself white and bled himself in the temple, forearm, or leg with a bodkin; a special tent, the "pretty house," was erected; mares were slaughtered and a feast held; toward evening, a fire was lighted in front of the pretty house, and to the accompaniment of drum and musical bow, the men, wearing ostrich plumes on their heads and a bell-studded strap from shoulder to thigh, danced four at a time (Musters, 1871, p. 176; 1872, pp. 199–200). A horse was killed at the eruption of a child's first teeth (Viedma, 1837 b, p. 78). If a child hurt itself playing, a "pretty house" was erected, mares were slaughtered, and a feast dance were held (Musters, 1872, pp. 201–202).

Education.—Children were indulged and seldom corrected. Whether the *Tehuelche* ever had the Elel bugaboo rite (cf. infra under *Puelche*, Education) is uncertain. Gusinde (1926 a, p. 310; 1931, p. 1083) was told by the *Tehuelche* of the upper Río Gallegos, to whom he paid a very brief visit in 1924, that they had a rite called, as among the *Ona*, klóketen; the rite was held in a tent covered with guanaco skin, and face covers of feathers were used instead of the *Ona* masks. Field work on the point here raised is imperative, to gather details, and to determine, if possible, whether this rite is an ancient *Tehuelche* one or one introduced more recently by immigrant *Ona*. (Cf. supra Introduction, on *Ona* immigration into Patagonia.)

Girls' puberty rite.—The *Tehuelche* had a simple puberty rite for girls. This first menses rite, as described in detail by Musters from personal observation (1871, pp. 76–78), followed the general pattern of the birth rite as regards painting and bleeding by the medicine man, erection of the "pretty house," slaughter of mares with feast, evening bonfire, dancing in fours by plumed and girdled men to instrumental accompaniment (pl. 39, *bottom*). The main differences were: The girl was placed in seclusion in the "pretty house," and the old women sang while the men danced.

D'Orbigny (1835–47, 2:177–178) describes the *Tehuelche* first menses rite as consisting chiefly of greetings to the girl by all of the tribe, of the distribution of horse meat by her to them, and of ablutions by the girl in the nearest stream with only her mother and other female relatives and the female shaman present. Viedma (1837 b, p. 78) noted the slaughter of a horse at first menses; Peña (1789, ed. Lehmann-Nitsche, 1914, p. 11), the seating of the girl in a public place, a dance around her, and the sacrifice of a mare; Lista (1879 b, p. 83), a feast lasting several days, a dance around a bonfire, and libations; Cordovez (1905, p. 47), tent(s) painted red.

Muñiz (1917, p. 205) reported two small huts, with the girl seated in one, and a young man with the title of "king" armed with a whip and bolas, who castigated the men or women who executed poorly the dance around the fire between the two tents. Muñiz ascribed this rite to the Pampean Indians in general, not specifically to the *Tehuelche*. The role of the "king" in it suggests that it may have been exclusively *Puelche*, or else *Tehuelche* influenced by *Puelche*. (Cf. Elel first menses rite, pp. 165–166.)

Marriage.—See page 149.

Death observances.—The most common form of disposal of the dead in the Patagonian area was cairn burial on a hilltop, the body resting on the surface of the ground with knees to thorax; other forms were sand interment and cave and crevice disposal. Some belongings were buried with the dead.

The more common later form of disposal was interment in a sitting posture, the body enveloped in a hide roll or mantle, the deceased's belongings or most of them being burned. (Peña, 1914, p. 11; Muñiz, 1917, p. 213; Gardiner, 1852, p. 23; Musters, 1871, p. 178; Roncagli, 1884, p. 779; Spegazzini, 1884, p. 236; Borgatello, 1924, pp. 22–23.) The deceased person's horses were killed, and the skin of one or more of them stuffed with straw and set up at the grave (Lozano [Cardiel and Quiroga, 1747] 1836–7, pp. 16–17, and later sources). Some placed food in the grave, others did not (Viedma, 1837 b, p. 78). Poles with banners were also put up at the grave. Killing of the dead person's dogs and other animals was common. Viedma (1837 a, p. 47; 1837 b, p. 77) reports a case of turning over the corpse to the old women for secret burial.

As mourning rites, the women wailed, scratched their faces and gashed their cheeks (Viedma, 1837 b, p. 77), and cut their hair or ends of it and threw them into the fire, while, according to Gardiner (1852, p. 23) the surviving male relatives cut gashes in the calves of their legs. The widow painted her face black. The name of the dead was not mentioned. According to Viedma (1837 b, pp. 77–78), in his day, mourning, in the case of a young person or of one in robust middle age, continued 15 days, with 1 day of mourning each succeeding moon and 3-day mourning at the first anniversary; but on the death of an aged person, only a broken-down horse was killed.

Future life.—Very meager data are found in our sources. Belief in a future life is clear; the rest obscure. According to Viedma (1837 b, p. 78), when an aged person died his soul just passed on, while when a young and robust person died, he (his spirit) was retained below the earth until such time elapsed as would have brought him to old age had he lived, and then passed into the first child born. According to Coan (1880, p. 172) and Borgatello (1924, p. 22), the lot of the good and evil differed in the future life.

WARFARE AND CANNIBALISM

See pages 153–154.

ESTHETIC AND RECREATIONAL ACTIVITIES

Art.—Geometric designs (fig. 19) of considerable complexity were painted in red, yellow, green, blue, white, and black on mantles. (Cf. Lothrop, 1929, for details and affiliations.) Crude zoomorphic and other pictographs (*Tehuelche?*, or proto-*Tehuelche?*) occur in *Tehuelche* territory.

Games and gambling.—The later *Tehuelche* were very fond of horse-racing, a ball game (the *Araucanian* pillma), dice (Spanish), and card playing (Spanish); and Coan (1880, pp. 77, 153) reported hockey (no doubt, *Araucanian*). The *Tehuelche* did a great deal of recreational swimming and diving, at which they were very proficient. They, even the women, were greatly addicted to gambling at horse-racing, dice, and cards.

Music and musical instruments.—Songs were without words. The early *Tehuelche* used a bark rattle hung to the girdle when dancing (Fletcher, 1854, p. 50); the later people used a rattle of dried bladder or hide, a skin-covered drum, the musical bow (fig. 18, *h*), and (Musters, 1871, p. 77) a flute of guanaco thighbone (probably the long bone used with the musical bow). The bull-roarer and trumpet were absent. (For details on *Tehuelche* musical bow and songs, see Lehmann-Nitsche, 1908 a, and Fischer, 1908.)

Tobacco and alcoholic beverages.—Gambling, smoking, and alcoholic beverages were absent from early *Tehuelche* culture, before the 18th century, but later were passionately indulged in (fig. 18, *l*). A favorite procedure among smokers was to lie prone on the ground and to swallow the smoke in order to produce temporary intoxication. (Carteret, 1770, p. 23; Coan, 1880, p. 216; details in Bourne, 1853, pp. 94–95.) Many *Tehuelche* in Musters' time did not smoke or drink at all (Musters, 1872, p. 199); some did not smoke in Prichard's time (1902, p. 101). Tobacco was commonly mixed with calafate (*Berberis* sp.) wood shavings for smoking (Prichard, 1902, p. 100).

Recent *Tehuelche* held an eating and drinking feast, called malón, with dancing, during which they sang and struck their mouths rhythmically with the palms of their hands to break the song, and often with bloody fighting before the feast closed (Borgatello, 1924, pp. 20–22).

RELIGION

Our information on *Tehuelche* religion is extremely meager, superficial, and vague. Great confusion, not to say contradiction, reigns, as a result partly of cultural mixture in the Patagonian and especially Pampean region, partly of failure on the part of some otherwise excellent first-hand observers to distinguish exactly between tribe and tribe.

From out of the welter there seems to emerge pretty clearly the conclusion that the *Tehuelche* believed in a Supreme Being, looked upon as in general benevolent and good, but rather aloof and otiose. (See esp. Viedma, 1837 b, pp. 75, 79; Musters, 1871, p. 179; 1872, p. 202; Borgatello, 1924, p. 22.) Whether he was the Maker or moral law-giver is not clear, nor have we evidence of any cult, at least in the way of public rites. The more commonly occurring names by which he was known, although some of these may not be *Tehuelche*, are: Guayava-cunnee (*Tehuelhet*, Falkner, 1774, p. 114, "lord of the dead"); Soychu (*Taluhet* and *Diuihet*, ibid.; *Patagon*, Dobrizhoffer, 1822, 2:90, who also gives soychuhèt, for "men that dwell with God beyond the world"; *Tehuelche*, Sánchez Labrador, 1936, p. 65, and Hervás, 1800–1805, 1:133) Setebos (Pigafetta, 1906, 1:56, 60, 78), Sesom or Sesó (Moreno, 1879, pp. 239, 387); Kek-a-once, Tchūr (Gardiner, 1852, pp. 23–24); Maiph (Beauvoir, 1915, pp. 180, 189, "espíritu bueno," "sombra"); Maipè (Borgatello, 1924, p. 22). The reiteration of the idea that the dead go to the Supreme Being after death is suggestive of the similar *Ona* conception, as is also the relative aloofness of the *Tehuelche* deity.

Evil happenings were attributable to an evil spirit or evil spirits, known under the names of Cheleulle, Cheleule (Pigafetta, 1906, 1:60, 78), Atskannakanatz (Falkner, 1774, p. 116), Achekenat-kanet (D'Orbigny, 1835–47, 4:220, "good and evil"); Agschem (Moreno, 1879, pp. 235, 416), Valichu or Gualichu (Sánchez Labrador, 1936, p. 66; Musters, 1871, p. 180; Borgatello, 1924, p. 22), Camalasque (Viedma, 1837 b, pp. 75–76), Kérenk(e)n (Spegazzini, 1884, p. 237) Kerrkenge (Moreno, 1879, p. 387), Kakenga, Kubejeken (Outes, 1913 a, pp. 486–487, "dios"); Jasemel (Peña, 1914, p. 11, "un Dios"). Gualichu is a non-*Tehuelchean* and non-*Araucanian* word. A good deal of *Tehuelche* religion seems to have consisted in propitiating and holding at bay these malevolent spirits, although some of them were apparently benevolent guardians of the *Tehuelche*. The best piece of rhea meat and the first bottles of liquor were offered to Walichu (Lista, 1879 a, p. 77).

Certain miscellaneous observances of a magico-religious nature have been recorded in fragmentary form. The new moon was given a salute with low muttered words (Musters, 1871, p. 179; 1872, p. 203). The cry of the nightjar over the camp or the toldo was an omen of sickness or death (Musters, 1871, p. 182; 1872, p. 203). It was taboo to injure nightjars (Musters, 1872, p. 203) and to take young half-fledged hawks from the nest (Coan, 1880, p. 113). Hair clippings could be used in black magic; when camp was broken, everything not taken away was burned lest some enemy should get hold of the article and do harm to the previous possessor of it (Moreno, 1879, p. 239). A lunar eclipse was attributed to Gualichu entering the moon and breaking it up; the people then would spit at the moon and throw stones at it to drive the evil spirit away (Borgatello, 1924, p. 22). On starting to smoke, the smoker would blow a puff toward each of the four cardinal points and mutter a prayer (Musters, 1871, p. 174; 1872, p. 203). At marriage feasts, great care was taken lest the meat or offal of the animals slaughtered therefor was touched by the dogs, as this would have been unlucky; at the shaman's child-curing rite, in which a white mare was killed and eaten, care was taken that no dogs should approach (Musters, 1872, pp. 201–202). On the occasion of sickness, the evil spirit was driven away by firing off guns and revolvers, by throwing lighted brands into the air, and by beating the backs of toldos with lance shafts or bolas (Musters, 1872, p. 203; Lista, 1879 b, p. 76).

SHAMANISM

There were both male and female shamans. Transvestite shamans were reported absent in the middle 18th century (Sañchez Labrador, 1936, p. 52), but appear later, in the early 19th (Coan, 1880, p. 158; D'Orbigny, 1835–47, 4:220). The ordinary curing procedure included sounding of drum and calabash (Sánchez Labrador, 1936, p. 127) or hide rattle (Coan, 1880, p. 153), and sucking out some small material object as the cause of the disease. The modern shamaness described by Borgatello (1924, p. 128) used a hand-drum in her curing rites. If the patient died, the shaman was very apt to be killed by the bereaved relatives.

The arrow-swallowing trick, observed by the Magellan expedition in 1520 at Port San Julian (Pigafetta, 1906, 1:58; Oviedo, 1851–55, 2:10) and by the Sarmiento expedition in 1584 near Cape San Gregorio in the Strait of Magellan (Sarmiento, [1579], 1895 b, p. 320; cf. Hernandez, [1620], 1895, p. 358), but not reported by any later observers, may have been from a shamanistic repertoire, although Pigafetta considered it a remedy for pain in the stomach. The performer, after removing the arrowhead, stuck the shaft down his throat to his stomach, and then withdrew it.

MYTHOLOGY

Our data on *Tehuelche* mythology and folklore are extremely meager. In the very brief cosmogonic note given us by Musters (1871, p. 179), the good spirit created the Indians and animals, and dispersed them from a place called "God's-hill." In Borgatello's account (1924, pp. 129–130), Heller, son of the sun, who also was called by this name, was the one who created the *Tehuelche* and gave them their land of Patagonia, and it is to Heller that the *Tehuelche* go after death. In the short Heller cycle, as reported by Borgatello, occur the Achilles and the magic flight motifs. Lista (1879 b, pp. 75–76) reported a *Tehuelche* flood story.

LORE AND LEARNING

No weights or measures are reported. Smoke signaling was much used; Borgatello (1924, p. 19) lists four distinct conventional signals. According to Sánchez Labrador (1936, p. 56), it seems that the *Tehuelche* and *Puelche*, in contrast to the *Araucanians*, did not use herbal curatives, but in the 19th century the *Tehuelche* made some use of them. (Fitz-Roy, 1839, 2:155; Musters, 1871, pp. 181, 183;

Lista, 1879 b, p. 76; Roncagli, 1884, p. 776; Spegazzini, 1884, p. 237.) Bloodletting was commonly resorted to. The resin of Schinus *Duvaua dependens*) was chewed for health purposes (Muñiz, 1917, p. 214; cf. Pineda, 1914, p. 9). Guanaco bezoars were utilized for medicinal purposes (Musters, 1871, p. 126; King, 1839, 1:117, for bowel complaints). Like the *Puelche* and the *Araucanians*, the *Tehuelche* had numbers for "100" and "1,000" taken from *Quechua*.

POYA CULTURE

Most of our extremely fragmentary data on *Poya* culture are derived from Diego Florez de Léon (1898), Gerónimo Pietas (1846), Miguel de Olivares (1874), Gómez de Vidaurre (1889), and Menendez (*in* Fonck, 1900). The main passages from the first four are reproduced in full and their anthropological content critically discussed and interpreted by Vignati (1939 a; cf. also Latchman, 1929–30, 64:220–222).

Subsistence activities.—Food consisted of animals, birds, and certain roots from which a flour was made; later, beef. The two earlier sources, Florez de León and Pietas, made no mention of agriculture; Olivares (1874, p. 511) stated that the *Poya* had "a little grain" [cultivated by them?]; Menendez (*in* Fonck, 1900, p. 319), that the "Puelche" [probably *Poya*] of Lake Nahuel-huapí in 1792 had some quinoa, wheat, and barley, that they did not cultivate the ground, but that they used to throw seeds on the ground along streams and what came up was gathered by the first who came along.

Skin bags served as water containers. An alcoholic beverage was made of wild fruits.

Hunting and fighting weapons were the bow and arrow and bolas. Dogs were used in hunting. Horses and cattle were early introduced.

Shelters.—Tents were of skins.

Clothing and ornaments.—Clothing was made of guanaco, fox, and ostrich skins, and included a large mantle and a smaller pubic covering. One Indian, from inland, met by Florez de León, "had his nose pierced like the people of Perú" (1898, p. 256)—no doubt, with his septum pierced.

Transportation.—Inflated guanaco skins were used in crossing rivers on horseback.

Social and political life.—Not only polygyny, but also polyandry was permitted (Olivares, 1874, p. 511; Vidaurre, 1889, p. 301); when one husband went away hunting, the other took his place. According to Olivares (1874, p. 512), sodomy was practiced; so, too, father-daughter incest (ibid.), though not approved by public opinion. Each band had its own headman, with persuasive rather than mandatory powers.

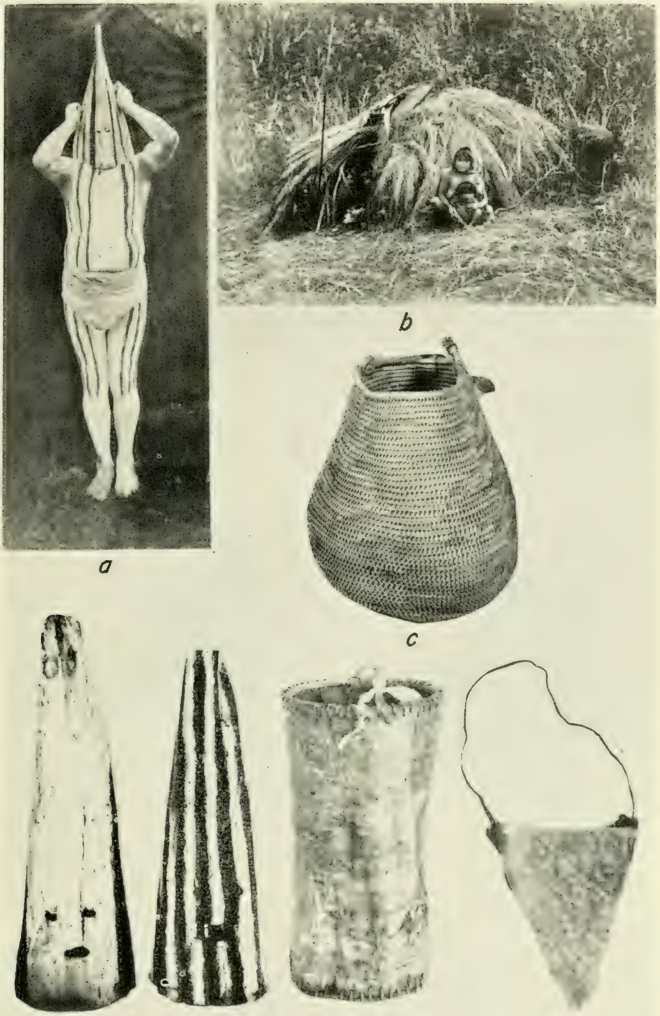

PLATE 33.—**Yahgan life and manufactures.** *a*, Masked Kina spirit (after Gusinde, 1925 a, fig. 4); *b*, domed hut (after Hyades and Deniker, 1891, pl. 20); *c*, coiled basket (courtesy Museo Etnográfico, Buenos Aires); *d*, bark masks used in Kina rite, height of taller 27 in., or 68.5 cm. (after Lothrop, 1928, fig. 92); *e*, bark bucket, height 12½ in., or 31.7 cm. (after Lothrop, 1928, fig. 55); *f*, pubic covering, width 9 in., or 23 cm. (after Lothrop, 1928, fig. 44).

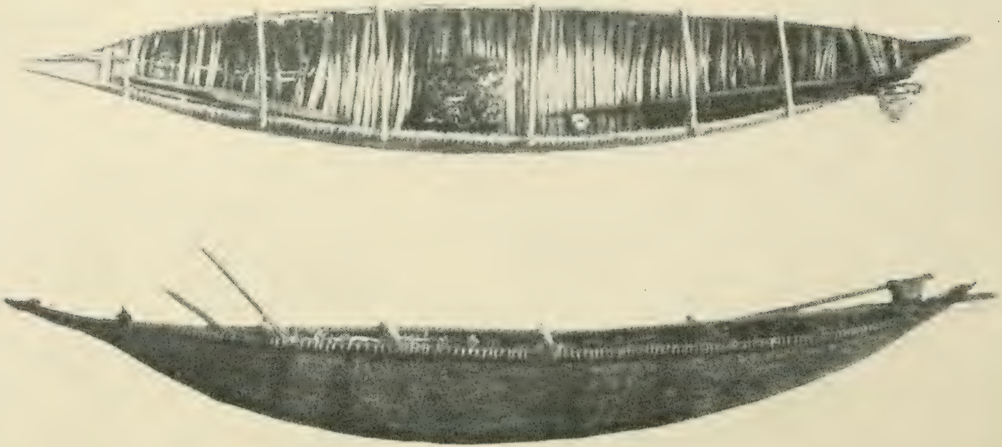

PLATE 34.—**Yahgan bark canoe.** Model. (After Lothrop, 1928, fig. 73.)

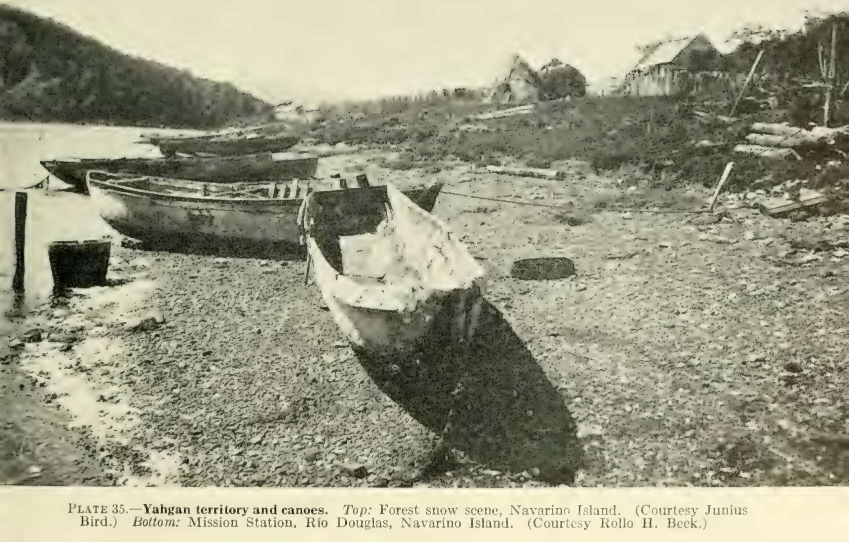

PLATE 35.—**Yahgan territory and canoes.** *Top:* Forest snow scene, Navarino Island. (Courtesy Junius Bird.) *Bottom:* Mission Station, Río Douglas, Navarino Island. (Courtesy Rollo H. Beck.)

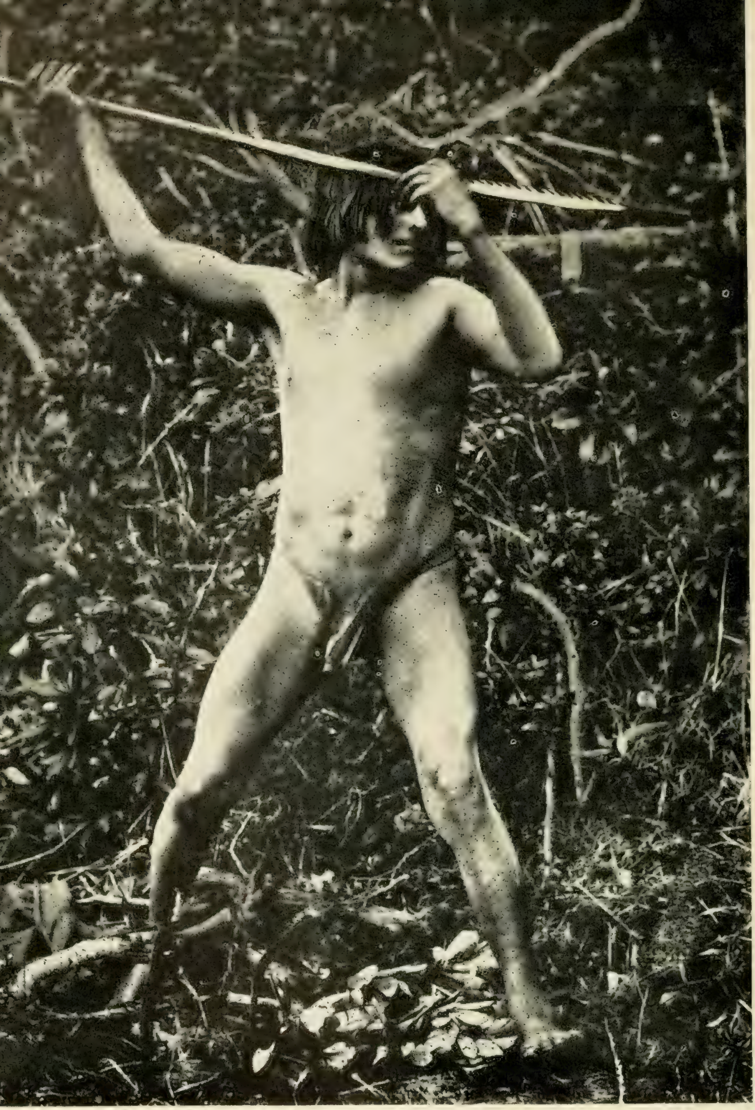

PLATE 36.—**Yahgan spear throwing.** Typical posture. (After Hyades and Deniker, 1891, pl. 1.)

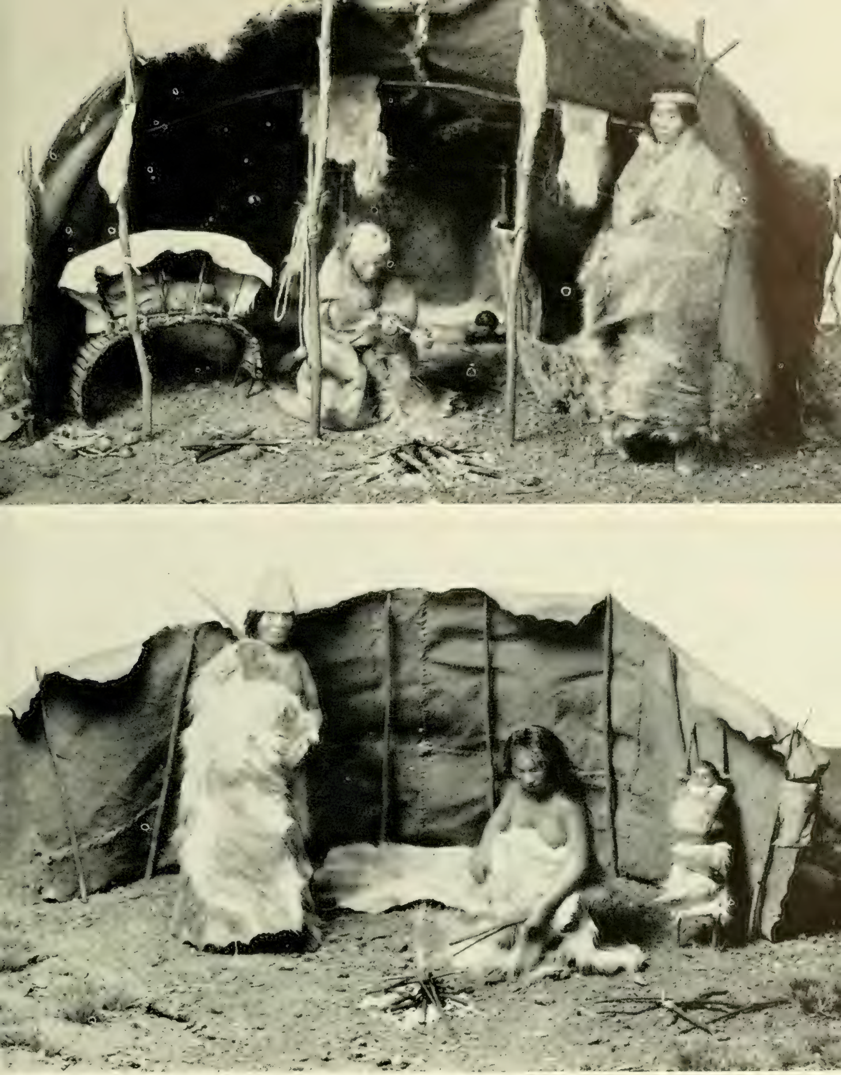

PLATE 37.—**Ona and Tehuelche shelters.** *Top:* Model of *Tehuelche* toldo. *Bottom:* Model of *Ona* wind shelter. (Courtesy American Museum of Natural History.)

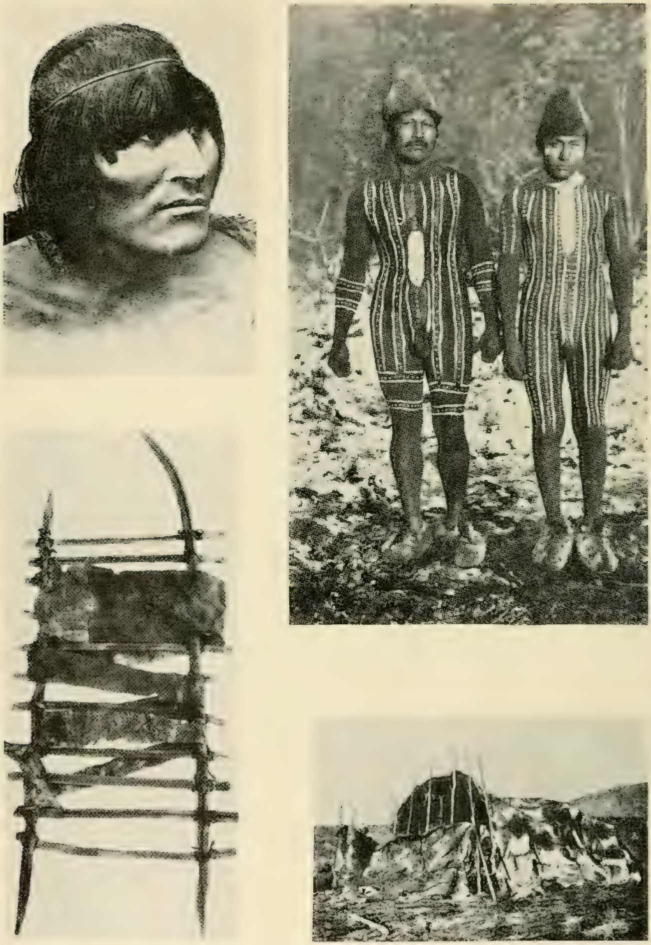

PLATE 38.—**Ona and Tehuelche culture.** *Top* (*left*): *Ona* man. (After Outes and Bruch, 1910, fig. 132.) *Top* (*right*): *Ona* men, painted for Kewánix dance, an all-day recreative interlude during Klóketen rite. No masks are worn in this dance and women take part. (After Gusinde, 1925 a, fig. 2.) *Bottom* (*left*): *Ona* cradle, length 30 in., or 76.5 cm. (After Lothrop, 1928, fig. 13.) *Bottom* (*right*): *Tehuelche* toldo, Province of Santa Cruz. (After Outes and Bruch, 1910, fig. 114.)

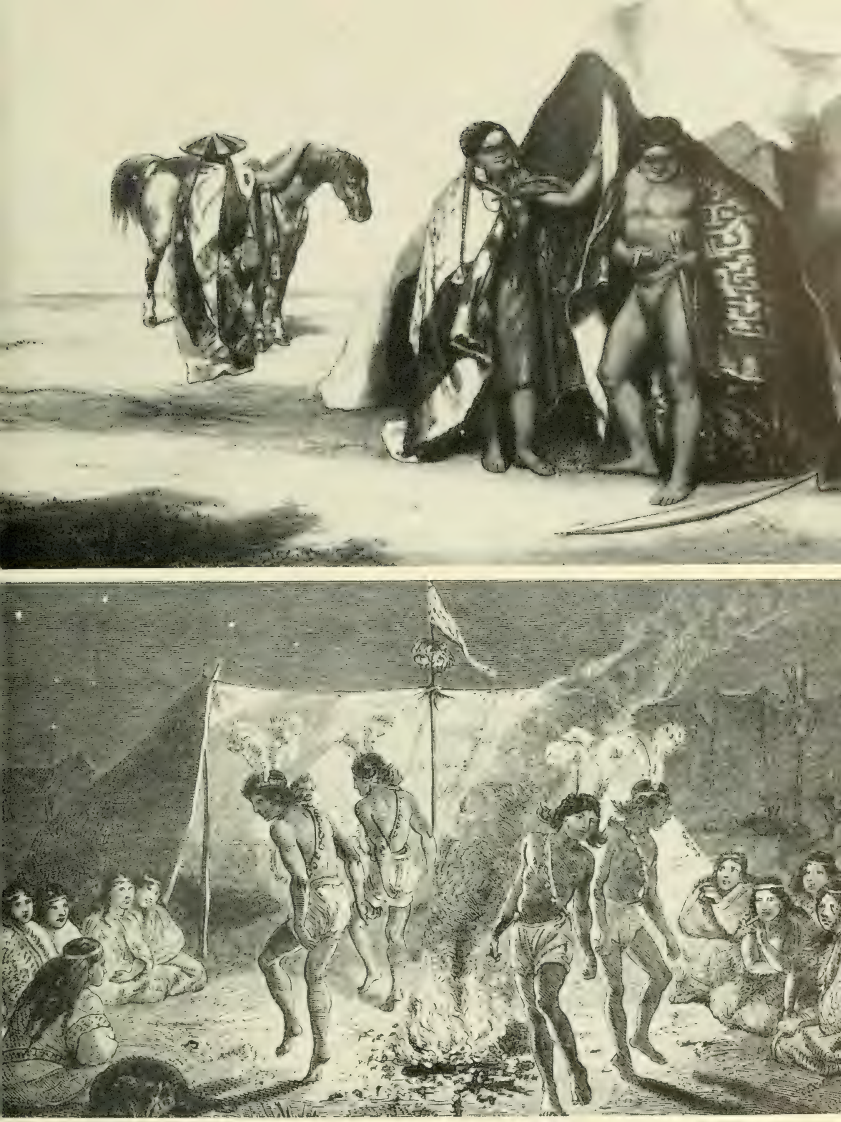

PLATE 39.—**Tehuelche costume and ceremony.** *Top:* Clothing and adornment. (After d'Orbigny, 1847, costumes, No. 1.) *Bottom:* Girls' puberty rite dance held by firelight. (After Musters, 1871, opposite page 175.)

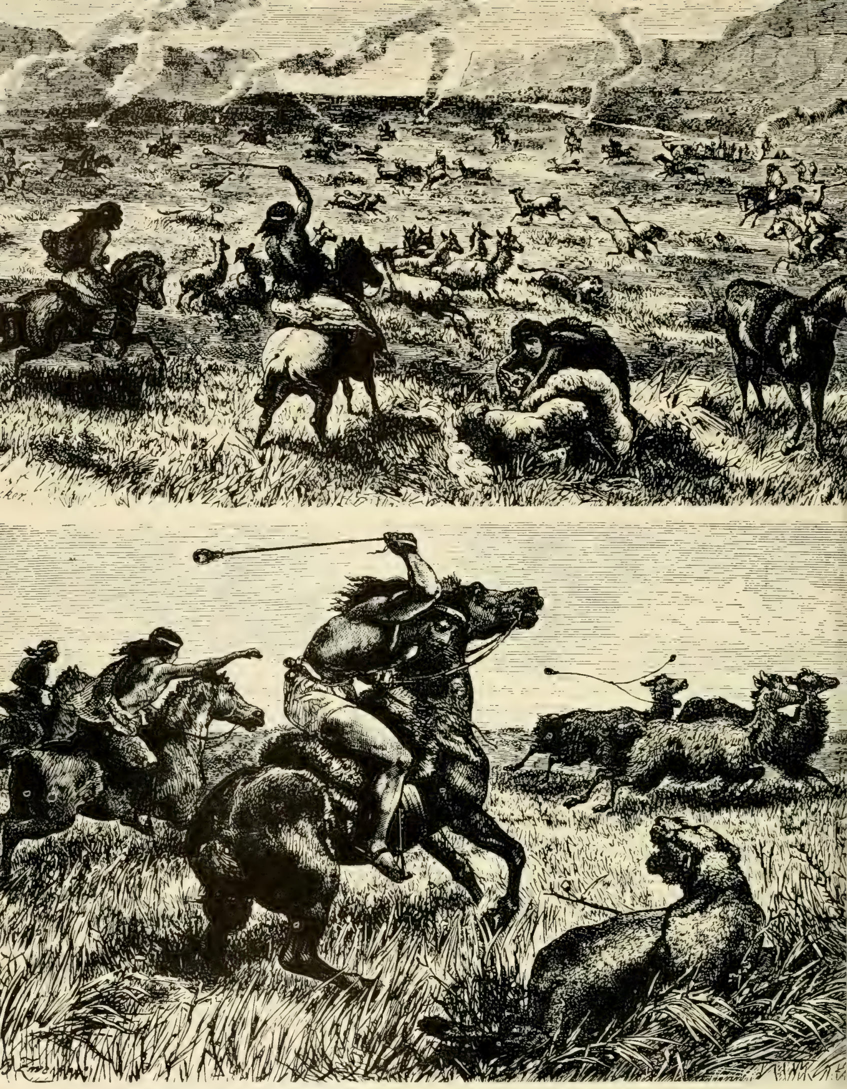

PLATE 40.—**Tehuelche hunting.** *Top:* Communal hunt, in valley of Río Chico. (After Musters, 1871, opposite page 64.) *Bottom:* Guanaco hunt. "Waki killing a puma." (After Musters, 1871, frontispiece.)

Religion.—Of *Poya* religion we are merely told that there was a belief in a superior being called Chahuelli or Chechuelli (Olivares, 1874, pp. 511, 514, 516, 519), who could do good or evil to people. Olivares compares him (and/or it) to the *Araucanian* huecubu (1874, p. 511).

Curing.—Bloodletting was medicinally practiced.

PUELCHE CULTURE

The bulk of our information on *Puelche* culture is derived from Sánchez Labrador (1936), Falkner (1774), and D'Orbigny (1835–47, 4:221–223, and esp. 2:266–272). If and how far the description by Ovalle (1888, pp. 178–179) of "*Pampa*" culture refers to the *Puelche* is doubtful. Very frequently Sánchez Labrador and Falkner, especially the latter, give rather detailed cultural data for tribes of the Pampa and vicinity in general, without specifying any particular tribe, *Puelche* or other. D'Orbigny clearly distinguishes between *Puelche* and others, but gives few details on *Puelchean* culture, dismissing, for instance, practically the whole of material and social culture with the statement that *Puelche* culture was in these phases like *Tehuelche* and Argentine *Araucanian*. In the following account we shall confine ourselves to those data that can clearly or with reasonable probability be assigned to the *Puelche* as such—not an easy task, since by D'Orbigny's time and even Sánchez Labrador's and Falkner's time great acculturation with *Araucanian* and *Tehuelche* culture had taken place.

If Lehmann-Nitsche's theory of a fourth Pampean language, the *Het* family, spoken, he believed, by Falkner's *Chechehet* of the southern Buenos Aires Province region, and by some of the *Diuihet*, should turn out to be fully validated, then it would be imperative to draw a distinction between the culture of the *Het* peoples and that of the *Puelche*. Lehmann-Nitsche, for example, considered that gualichu, the name for the evil spirit(s), was of *Het* provenance. At present, however, even though we accept the *Het* hypothesis, there is very little of Pampean culture that can be assigned specifically to the *Chechehet* or *Het*-speaking peoples. In the following summary of *Puelche* culture, only at a point here and there will the possibility be considered that a given cultural trait assigned to the *Puelche* may actually have been *Het* instead. This approach is not all that might be desired, but appears to be the most satisfactory one under present limitations of space and knowledge.

Scattered through the early Chilean sources, such as Rosales and the Proceso Criminal de 1658, are certain sparse data on the culture of the nomadic hunting peoples living at the time in Pampean territory, often called in these sources by the generic geographic name of

"*Puelche*," and sometimes hunting in territory that around the middle of the 18th century may have been true *Puelche* country. In general the relation of these "*Puelche*" of the early Chilean sources to our modern *Puelche* is difficult to determine; at best we get a reasonable surmise in some cases as to identity, more frequently not even that. It seems best, therefore, to omit most of these Chilean data.

The culture of the *Querandí*, who may well have been *Puelche*, is treated elsewhere in this volume (pp. 180–183).

All cultural attributions in the following account refer to the later *Puelche*, that is, from the middle 18th century on. Prior to that date *Puelche* culture is for all practical purposes a complete blank, or, even if we use the Chilean data, a nearly complete one.

SUBSISTENCE ACTIVITIES

Food.—In the middle 18th century, the staple food of the *Puelche* was horse meat. When meat was abundant, only the ribs, loins, and shoulder would be eaten. Grease and fat were especially appreciated. Lice were eaten. Among the *Puelche* met by D'Orbigny (1835–47, 4:101) fishing was not practiced.

The *Puelche* had no agriculture, and originally no domestic animals, except the dog. They must have acquired the horse somewhere around the early 18th century; it is unlikely that they had it earlier.

Hunting weapons.—Wild horses were hunted with bolas and lasso in Sánchez Labrador's time (1936, p. 34). D'Orbigny's *Puelche* also used the bow and arrow, and the lance—the latter in fighting, the former probably both for hunting and for fighting (1835–47, 2:223; 4:196). The *Puelche* known to Musters (1872, p. 205) were experts in the use of the sling.

SHELTERS

Huts were of horse skin on a wooden framework of thick poles. The ground plan was quadrangular. The roofing was of many skins sewn together with horse sinew, and put up with the hair outside. There were two doors, to east and west, or to north and south respectively (Sánchez Labrador, 1936, pp. 37–38). *Puelche* huts were, according to D'Orbigny (1835–47, 2:269), just like those of the *Tehuelche*.

DRESS AND ORNAMENTS

Clothing.—The common people, both men and women, wore square mantels of horse skin, scraped, softened, and painted, with the hair left on. Prominent individuals used mantles of guanaco, fox, or otter skin. The men wore as a pubic covering a triangular piece of horsehide about 8 inches (20 cm.) each side, attached to the waist with thongs, a third thong passing between the legs and tied to the other two; the women, an apron hanging from the waist to the knees. In warm weather the mantle was left off (Sánchez Labrador, 1936, pp. 35–36). The *Puelche* of the Río Negro in D'Orbigny's time dressed like the *Tehuelche* (1935–47, 2:269).

Adornment.—Facial depilation and body painting in various colors were customary. No deformation or mutilation of any kind is recorded, not even ear piercing; nor is tattooing. To what extent the various personal adornments of women and girls, as listed by Sánchez Labrador (1936, p. 36–37), were of *Araucanian* or other introduction, cannot be determined. The feasting and weeping at hair cutting (ibid. pp. 76–77) may also be of non-*Puelche* origin. Río Negro *Puelche* adornment as observed by D'Orbigny (1835–47, 2:269) was like *Tehuelche.*

TRANSPORTATION

No type of watercraft is reported for the *Puelche.* On horseback, the women sat, not on a saddle, but on a high blanket-covered seat.

MANUFACTURES

No basketry is recorded, and no pottery making. In Sánchez Labrador's day, the *Puelche* women did no weaving; woven ponchos and mantles were bought from the Argentine *Araucanians* by the *Puelche* to trade with the Spanish (1936, p. 40); but they were beginning to learn weaving in D'Orbigny's time (1835–47, 2:269; 4:223).

Flint knives and hafted flint scrapers were used.

Weapons included bolas, lassos, bows and arrows, lances, and slings (p. 162); armor was also used (p. 164).

SOCIAL LIFE

The *Puelche* had no sibs, no secret or other societies, no marked social stratification, no ruling caste. The points mentioned infra under Marriage and Family, viz, preference for marrying children of headmen to children of headmen, and the holding of captive "slaves," indicate rudimentary stratification.

Marriage and family.—The bride-price, consisting of objects of considerable value, was given over to the bride's people, and distributed among them according to degree of kinship. The bride was then brought to the groom's tent. Monogamy was the general rule, except for headmen who would have two or three wives; one chief, the famous Cacique Bravo (Cangapol), had seven (Sánchez Labrador, 1936, pp. 71–73). Sometimes a man married his brother's didow (Camaño, 1937, p. 115), but there does not seem to have been any mandatory levirate. Headmen liked to marry their daughters into the families of other headmen. Divorce was uncommon; its occurrence was mostly among newly-wed couples. According to D'Orbigny (1835–47, 2:270), adultery was punishable with death, but could be compounded by payments; there were many concubine slaves taken from enemies. (Details on marriage in Falkner (1774, pp. 124–127) refer no doubt in part to the *Puelche*, but here, as in most other sections of his treatment of culture, he does not distinguish sufficiently to permit confident use of his data as applicable to *Puelche* culture.)

Etiquette.—Nothing is specifically known. The Indians of the Pampa like those of Patagonia used to bathe in the river or lake of mornings before sunrise (Sánchez Labrador, 1936, p. 49).

POLITICAL LIFE

The band.—The *Puelche* appear to have been broken up into relatively small bands, each with its own headman. The five bands who in Cardiel's time (1922, p. 63) made up the *Puelche* as known to him totaled in all only 100 to 120 warriors—probably about 100 to 120 persons per band. The headmen had to be good orators and good warriors; they had no authority to command the members of their band. There was no paramount chieftain for peacetimes.

Warfare and disputes.—Warfare was the common thing. The lance, sometimes thrown when the enemy was out of thrusting reach (Sánchez Labrador, 1936, p. 45; cf. Azara, 1809, 2 :46), was the chosen weapon; the bolas were also important in warfare; few used the bow and arrow in the middle 18th century, as it was considered cowardly to do so (ibid., p. 46). Hide coats and helmets served as defense arms. Face and body were painted on war expeditions.

Within the tribe conflicts were settled by private action, without intervention of the headman.

Mercy killing by premature interment in cases of hopeless illness was practiced. Cannibalism is not reported.

The peoples of the higher Andean Cordillera and the trans-Andine plains were persistently reported by the early Chilean writers to have used poisoned arrows (González de Nájera, 1889, pp. 6, 96; Rosales [1674], 1877–78, 1:239). But whether these reports are fully dependable and whether they concern the ancestors of our *Puelche* are points that cannot be decided with confidence. (Cf. discussion by McClafferty, 1932, pp. 41–42.)

ECONOMIC CULTURE

Practically nothing is known of economic culture. Active trade was carried on with other tribes and with the Spaniards. Food was generously shared, but the giver of one day would be the receiver of other days. The "concubine slaves" mentioned by D'Orbigny

(1835–47, 2:270) may have represented drudges or adopted wives or a combination of both; he gives no details.

LIFE CYCLE

Childbirth and infancy.—After delivery, the mother bathed in a lake or stream. The medicine man was called in to massage and breathe on the newly born child in order to give it strength. The couvade obtained in very full but simple form: When the child was born, the father took to his bed—for how long, Sánchez Labrador does not say, nor does he give further details (1936, p. 73). D'Orbigny merely states (1835–47, 2:270) that birth observances were nearly the same as among the Argentine *Araucanians.*

Puberty rites.—There is no mention of a boys' initiation rite. Sánchez Labrador, however, gives (1936, pp. 67–71) rather minute details on the Elel first menses rite which, he states, was observed by the *Puelche* and *Tehuelche*, but not by the other Pampean (*Araucanian*) peoples. The *Araucanians* of Chile, as distinct from those east of the Andes, had no girls' puberty rite, so far as we know. The *Tehuelche* first menses rite, as described by Musters, D'Orbigny, and Peña, has little in common with the rite which Sánchez Labrador describes. There is, however, a definite though only fractional resemblance between the Elel rite and the rite of the "Pampean Indians" [including the *Tehuelche?*] as Muñiz records it. (Cf. supra, p. 155.) There is thus ground for suspecting that the Elel rite in its specific characters is not an original *Tehuelche* one, that the Muñiz instance may represent an intrusion into *Tehuelche* culture from a foreign center, and that the Elel rite is the native "*Pampa*" form, presumably the native *Puelche* one.

At the first two menses of the daughter or other relative of a headman, a large toldo covered with painted horsehides was erected, and decorated lances stuck upright around and within it. With a drum formed of a brass pot, the people were summoned. One of the older and most respected men made a speech, at the end of which he appointed one of the most valiant Indians to play the part of Elel, the chief of the evil [?] spirits, as Sánchez Labrador calls this being. The Indian took flight but was pursued and retrieved. He was clothed in a special decorated mantle and a feather headdress, his face was painted in various colors, and he was assigned six young unmarried fellows as pages and guardians. Behind the large tent another was put up in which four old hags stayed day and night, keeping up a continuous wailing. Still another tent served as kitchen.

Throughout the three weeks or month of the rite, the girl remained hidden in the large tent, only going out alone to seek roots and fruits ("frutillas" [strawberries?]) on the Pampa. Both she and Elel fasted rigorously, although he was allowed to drink plenty of fermented chicha. Elel had authority to command any one to do his bidding. No one spoke to him directly, but only through his pages. Toward the end he got angry (or pretended to), and bade the people gash themselves, and he would beat them; those beaten considered it an honor. He would give orders to capture individuals and then demand a ransom. There were sports, and a dance by nude Indians decorated with feathers and two horns on their heads and with a tail behind.

Finally Elel escaped, and ate his full, while the others had to fast 8 days on only roots and fruits; if they did not, Elel would castigate them. So ended the Elel rite. (Sánchez Labrador, 1936, pp. 67–71.)

This same being, Elel, entered also into the native educational system, apart from the first menses rite. Once or twice a year, the headman would order one of the young unmarried men to dress up as Elel with tiger skins and with painted face, and to go around to all tents and make as if to snatch away the young boys. These would flee to their mothers for protection. Parents did not punish their children, but if the latter were bad or would cry too much, they would be threatened with Elel, and the parents would tell them they would not defend them when he came for them (Sánchez Labrador, 1936, p. 74).

Death observances.—Our chief sources are Sánchez Labrador (1936, pp. 41, 50, 56–63), Falkner (1774, pp. 118–120), and D'Orbigny (1835–47, 2: 270; 4: 112, 223); and for comparison, Rosales (1877–78, 2: 98) on burial customs in the Cuyo province. D'Orbigny gives only the most meager details; Sánchez Labrador and Falkner give considerable information, but only in certain points specify what is peculiar to the *Puelche*. Furthermore, it looks as if even as early as the middle of the 18th century there had occurred a great deal of acculturation with *Araucanian* burial customs.

Disposal of the dead.—The favorite *Puelche* burial was probably that in caves in the hills, the body deeply flexed, knees to face, and enveloped in the mantle. The personal property, such as weapons and adornments, of the deceased person was buried with him; his horses and dogs were killed; his hut was burnt to the ground. If death occurred far from the mountains, the body might be disposed of on the plains. In some cases at least, it seems that if death occurred far off from the hills, the flesh was stripped from the bones and the bones transported thither later. Bone stripping also occurred among the Cuyo Province Indians of the 17th century, according to Rosales: On the first anniversary after death, the bones of the deceased were disinterred, and after the flesh was stripped off them, they were painted yellow and other colors, were carried around in saddle bags on a horse from camp to camp, and were deposited in a special hut at each camp (Rosales, 1877–78, 2:98; cf. Vignati, 1937 a, on polychrome painting of archeological crania in southwest Buenos Aires Province). Whether secondary burial was part of earlier uninfluenced *Puelche* culture, cannot well be determined.

Pouring some of the first chicha of the year on the bones of the dead, a custom reported for the *Puelche* by Sánchez Labrador (1936, p. 63), was perhaps of non-*Puelche* origin. The *Puelche* did not cremate.

ESTHETIC AND RECREATIONAL ACTIVITIES

A kettledrum was used, and clothing was painted. We lack, however, detailed data on esthetic culture that can be with confidence attributed to the *Puelche.*

Sánchez Labrador (1936, pp. 39–43, 46–49) mentions the following items as characteristic of the Pampa Indians in general: Target shooting with toy bolas as boys' play; dolls, jacks, and hop-scotch as girls' play; a ball game resembling *Araucanian* pillma as men's play; a simple football game as women's play; heavy gambling with dice and cards, introduced by Spanish captives, indulged in by men, and gambling with dice, at least, by women too; use of the native chicha from algarroba beans or from apples, and of spirituous liquors acquired from the Spanish, with a great deal of intoxication. Presumably, the *Puelche* would be included in these generalizations. If so, non-*Puelche* influence is obvious in some of the items. Whether the early *Puelche* had a native intoxicant of their own is not clear.

RELIGION

Sánchez Labrador and Falkner have given us considerable information on religion and shamanism among the tribes of the Pampa, but very little of this information can with confidence be specifically attributed to the *Puelche.*

According to D'Orbigny (1835–47, 2:270), the *Puelche* of his day believed in a beneficent being who gave them all they desired without their praying for it, and also in an evil spirit called Gualichu or Arraken who sent sickness and death. Hunziker (1928 b, p. 276) includes in his *Puelche* vocabulary Atgezual as meaning "el Gran Espíritu"; Hale (1846, pp. 654, 656), Anau-kanītan and Siés, "God," and Anau-kasītan, "evil spirit"; Milanesio (1898, p. 22; 1917, opp. p. 6), Tukutzual, "God."

As for the *Puelche* of the middle 18th century, Sánchez Labrador states (1936, pp. 64, 66) that they had no belief in God, but that they did believe in an evil being or beings, Balichu, and in a prince of them called Elel, who caused all sickness, death, tempests, and so forth; Falkner (1774, p. 114) states in a general way that "these

Indians [of the Pampa] believe in two superior beings, the one good, the other evil." Soychu (see supra, p. 157) may have been a *Puelche* name for the deity or one of the deities (cf. Falkner, 1774, p. 114); Gualichu may also be a word of *Puelche* origin; Lehmann-Nitsche (1922, pp. 28, 33) considered that both words were from his *Het* tongue; but the point is quite uncertain. With the meager evidence we have, all that one can do is to present the foregoing facts and let the reader draw his own conclusions.

At full moon, there was excessive rejoicing, and the moon was asked for strength (Sánchez Labrador, 1936, pp. 65–66).

SHAMANISM

Here, too, it is impossible to say in how far as a rule the generalized statements in Sánchez Labrador and Falkner apply to the *Puelche.* Sánchez Labrador, however, does specifically (1936, p. 52) ascribe transvestite shamans to the *Puelche*—men who dressed like women, cooked and fetched water, and stayed with the women. Shamans were very much feared. They were called, according to D'Orbigny (1835–47, 2:270), calmelache (a name very similar to the name camalasque, which Viedma [erroneously?] attributes to the evil spirit of the *Tehuelche;* see supra, p. 158).

MYTHOLOGY

Available data are excessively meager. Sun was the elder brother, Moon the younger brother; Moon was not so intelligent as Sun (Lehmann-Nitsche, 1919 a). There was a tradition of a very high tide (Lehmann-Nitsche, 1919 b) and also of a flood. After the flood which covered all the earth except the Sierra de la Ventana, the peoples came out of caves in the mountains and the world was populated again (Sánchez Labrador, 1936, p. 66; cf. Vignati, 1938 b).

LORE AND LEARNING

Sánchez Labrador (1936, p. 56) rather clearly implies that the *Puelche* used no herbal curatives. One can count up to 100,000 in the *Puelche* language, but all numbers from 99 up, including, of course "100" and "1,000," are from *Quechua.*

BIBLIOGRAPHY

For bibliographic references, see pages 138–139.

THE HUARPE

By Salvador Canals Frau

The *Huarpe* were the aborigines of Cuyo in the middle of the 16th century at the time of the Spanish Conquest (map 1, *No. 2*). Cuyo archeology and historical documents show that before the Conquest a large section of the country had been more or less influenced by Tiahuanaco, *Chincha*, and *Inca* cultures of the Andes.

TRIBAL DIVISIONS AND HISTORY

During the historic period, the *Huarpe* occupied all the broad area between the Jáchal-Zanjón River on the north and the Diamante River on the south (lat. 33° S., long. 68° W.). Their domain also included the mountains known as Sierra de San Luis in the east.

The *Huarpe* territory (map 2) was bounded on the west by the Andes; on the north by the *Diaguita;* on the east by the *Comechingon* and *Pampa;* and on south, first by the *Puelche* of Cuyo, and during and after the 18th century, by the araucanized *Pehuenche.*

The number of *Huarpe* cannot have been very great because of the barrenness of their land and the rudimentary nature of their agriculture. Consequently, certain estimates made by apologists of missionary achievements concerning the great density of their population must be relegated to the realm of fantasy. The original small number of the *Huarpe* was further decreased when many of them were sent during early times to Chile to meet the need for industrial labor, resulting in their early extinction, probably during the first part of the 18th century. After this period, only a few of very mixed strain existed in remote areas, such as on the Guanacache Lagoons, or in special settlements.

The *Huarpe* language has two distinct known dialects. Father Luis de Valdivia, who published grammatical rules and vocabularies of both, calls that of the *Huarpe* of San Juan, *Allentiac*, and that of Mendoza, *Millcayac.*

With these two dialects, Rivet established his *Allentiac* linguistic family, which has generally been accepted. But the fact is that the *Puelche* of Cuyo, the early neighbors of the *Huarpe* to the south, and the early *Pehuenche* of Neuquén must also have spoken dialects related to these. These two ethnic groups, likewise, resembled the *Huarpe* in physical characteristics. The same is true of the *Comechingon* of the Córdoba Mountains and of the eastern part of San Luis, who also had a similar culture. Thus it becomes necessary to group the *Allentiac*, the *Millcayac*, the *Puelche* of Cuyo, the *Pehuenche*, and the known *Comechingon* dialects with the *Henia* and the *Camiare* in a single linguistic family which might be called *Huarpe-Comechingonan* and which would cover the entire area from the Jáchal-Zanjón River to Lake Nahuel-Huapí, from the Cordillera to the Córdoba Mountains.

Physical type.—The physical type of the *Huarpe* is known from early chroniclers' descriptions and from some archeological finds. Judging from these data, the *Huarpe* were rather tall, thin, dolichocephalic, and darker and more hairy than neighboring Indians.

Father Reginaldo de Lizárraga, who crossed the Cuyo region in his long overland trip from Perú to Chile in 1589, tells us that they were tall and thin, wherefore they appeared to him "badly proportioned" and "gaunt."

Thirty years later, about 1618, Father Ovalle, another chronicler who visited the same region, attributed to the *Huarpe* the same tall, thin stature, describing them as "tall as bean poles" and "very thin and austere." Not even the women were an exception to this rule, for when the author was composing his work in Rome in 1646, he recalled never having seen women so tall and thin in any other tribe of Indians. Clearly, this Chilean author could not have seen many native tribes.

Unfortunately, very few anthropological remains have been found in the region to date. The majority of finds belong to the precordilleran area of the northwest where, in ancient times, the Peruvian cultures prevailed; or to the southern region, which in the 18th and 19th centuries was inhabited by the *Araucano;* in general, they are found outside the limits of the *Huarpe.* Furthermore, both the Peruvians and the *Araucano* are usually included in the same Andean racial type, which is short of stature and brachycephalic, that is, entirely different in appearance from the *Huarpe.* Nevertheless, certain finds verify the chroniclers' description of the *Huarpe*: Some skulls and long bones from San Juan studied by Ten Kate (1896), others described by Constanzó (1942), certain finds from Viluco in Mendoza, and others from isolated sites, part of which are unpublished.

The relative scarcity of human remains belonging to the rather tall, thin type seen by the chroniclers can be explained by the fact that the extremely dry, flat Cuyo area permitted habitation only along rivers and lakes or where irrigation of the land was possible. In early times the European colonists occupied the same places and, through developing farm land, which is still used, destroyed many native burial grounds or covered them with crops.

As archeological traces of *Huarpe* culture are also very scarce, doubtless for the reasons given above, we must utilize historical data, which cannot always be verified by archeology.

CULTURE

SUBSISTENCE ACTIVITIES

The *Huarpe* economic system was based on cultivation wherever it was possible; in some areas irrigation was carried on with elementary technical means; in other areas the moisture of the ground was sufficient for crop germination and growth. The *Huarpe* also fished in the rivers and ponds, hunted, and collected plant foods, especially algarroba. From the marsh lands, they, like other South American peoples, obtained the edible roots of cattail (totora) reeds.

Certain early documents prove that these Indians used various irrigation canals that still exist in the Mendoza area. The Spaniards evidently did no more than widen the aboriginal canals, make new ones, and improve and increase the system of drains.

Corn is the only vegetable which we are certain the *Huarpe* cultivated. According to an early document, the conquistador, Pedro del

Castillo, upon reaching the Cuyo region to found the first city, Mendoza, was greeted by chiefs who brought him, among other gifts, tender ears of corn which, naturally, they had raised. Historical documents frequently refer to the "cornfields" of the Indians. We also know of numerous bed-rock mortars, as well as many conanas, or portable mortars, with their corresponding pestles.

For animal food, the *Huarpe* hunted rhea, guanaco, and deer, which abounded in Cuyo territory, and aquatic birds. Ancient chroniclers tell of curious methods of catching both animals and birds. For example, hunters followed guanaco on foot to tire them, or, with their heads covered with a gourd, waded into the water up to their necks, in order to catch the birds that swam among other dry gourds which had previously been thrown into the water.

HOUSES

The *Huarpe* dwelling was not uniform throughout the entire region but varied according to the locality. The Indians who lived on the shores of lakes built semisubterranean dwellings. In the mountainous region they built houses of pirca, that is, of stones laid together without mortar. On the plains they generally constructed dwellings made with a framework of sticks, and walls of cane or of bundles of reed grass, sometimes covered with a thin layer of mud. Dwellings of this type are still seen in the country and are known as "dwellings of quincha." There are, however, no archeological or historical data which support the claim often made in modern accounts that the *Huarpe* used skin tents (toldos). Toldos were used by the people living on the Pampa or by other tribes farther south.

DRESS AND ORNAMENTS

We are familiar only with men's clothing, which consisted of a long shirt, which was either sleeveless or had short sleeves. This garment, which the Spaniards called the camiseta, is common to the Andean peoples. Both sexes wore their hair long.

Women painted certain parts of the face green and used necklaces of different materials. One necklace which was dug up in the Desaguadero zone consists of many small, finely carved mollusk-shell disks. Feather ornaments were very common, especially for festivities.

TRANSPORTATION

Historical documents state that children slept in a sort of cradle, the exact shape of which is not known. On journeys, women carried these cradles on their backs by means of a broad strap passing over the forehead.

A characteristic *Huarpe* culture element is the balsa raft made by tying together several bundles of totora reeds. These were used to travel the numerous rivers and lagoons. It is the same type as that of the *Uro* of the Titicaca region. Today it is still used on the Guanacache Lagoons (fig. 21).

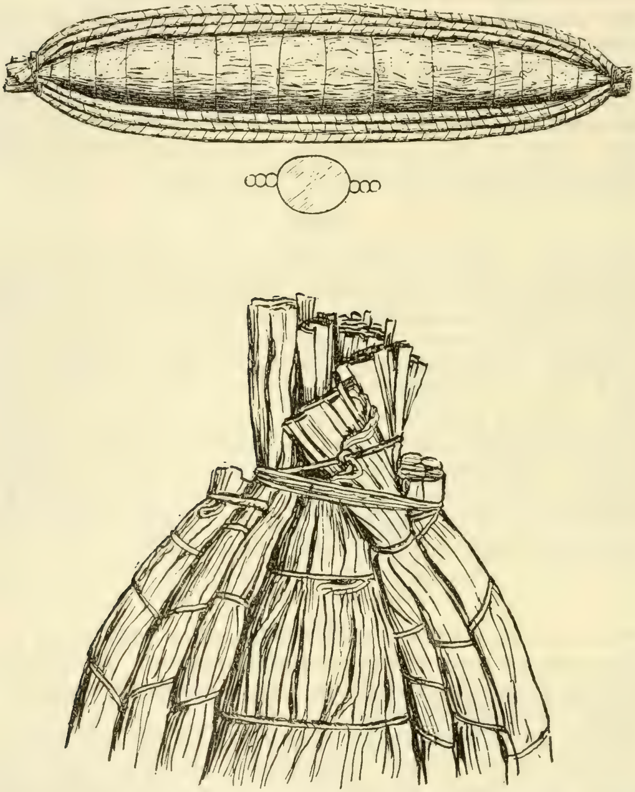

Figure 21.—Totora balsa, Guanacache Lagoons. *Top:* Balsa, full length and cross section. *Bottom:* Detail of end of balsa. (After Métraux, 1929, p. 4 and fig. 5.)

MANUFACTURES

Archeological remains of *Huarpe* manufactures are, with the exception of ceramics, very limited, but historical data supplement our information.

The discovery of plain and unadorned spindle whorls of clay and stone, and various references to textiles, show that these natives knew how to weave. This is corroborated by their use of the classic Andean shirt. But we have no specimens of their textiles and do not know their technique of weaving or whether it was done by the men or the women.

Huarpe ceramics are in general of good quality and include not only everyday pottery, but vessels of superior type and decoration. The shapes are as a whole characteristic of the Andean area, although some appear to be peculiar to the *Huarpe* region. One form, for example, is a small, subglobular jar some 5 inches (13 cm.) high and equally wide, with a single handle attached to the rim. Usually decorated with black and red designs, both its form and ornamentation are subdued yet beautiful. Another ceramic type which appears to be characteristic of the *Huarpe* is a vessel in the shape of a broad drum, known as a "kettledrum" (timbal). It is about the same size as that of the small jars, but its largest diameter is at the mouth. Its decoration is different, but the colors are usually the same. The shape of this jar is generally considered to be a Tiahuanacan trait, and its presence in Cuyo suggests past influences from that ancient culture.

Historical references show that the *Huarpe* were true masters of the art of basketry, producing even vases and tightly woven drinking cups. Even today, the few very mixed descendants of the ancient tribe, living secluded in the lagoon area of Guanacache, make beautiful baskets of the type known as workbaskets (fig. 22). These are still decorated, as in ancient times, with woolen tufts dyed different colors. On various potsherds found in different parts of the *Huarpe* area are impressions of twined baskets, the technique which is used today in making workbaskets.

The *Huarpe* weapons were the bow and arrow. We do not know the shape or other characteristics of the bow, but historical documents indicate that it was about 5 feet 4 inches (165 cm.) long and that the arrows were 2 feet 10 inches (85 cm.) long, which is longer than the Andean and Pampean bows and arrows. Numerous specimens of stone arrowheads, with or without stems, can be found in the region.

Skin work and featherwork was carried on intensively by these Indians.

Finally, we might mention the discovery of other cultural remains, such as stones perforated for slingshots, lip plugs (tembetás), etc., although we know nothing of their use by the *Huarpe*.

SOCIAL AND POLITICAL ORGANIZATION

We know very little of *Huarpe* social organization. The family was based on patrilineal rights and consisted of the husband and one or more wives acquired through purchase. Historical data show that *Huarpe* practiced the levirate, that is, the custom whereby the

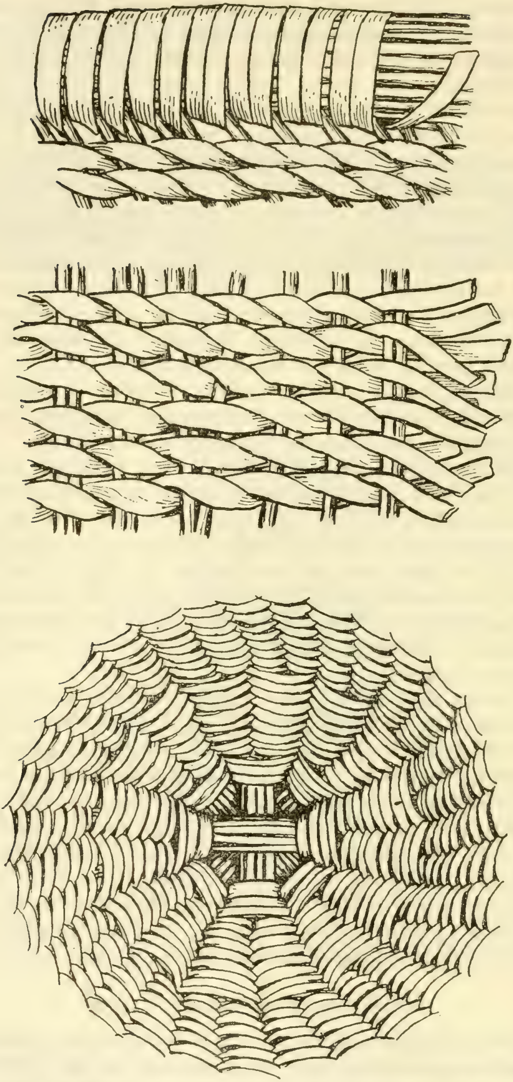

FIGURE 22.—Guanacache twined basketry details. *Top:* Border. *Center:* Section of side. *Bottom:* Base. (After Métraux, 1929, pl. 2.)

wives and children became the dependents of the deceased husband's brother.

A certain number of families formed a group under the control of a chieftain. It seems that each group possessed its own special farm lands, some of which were called the "cornfields" (maizales) after the vegetable raised on it. Other larger, unirrigated fields were called the algarrobales. Ancient documents have numerous references to the maizales and algarrobales of the Indians.

ESTHETIC AND RECREATIONAL ACTIVITIES

The only musical instrument mentioned is the drum, but its shape is not known.

Periodically the *Huarpe* celebrated drunken festivities, to which people of neighboring villages were invited. For 3 or 4 days and nights without sleeping, men danced and drank in a round hut built for the purpose. The women, being forbidden to see their husbands drinking, remained outside the hut. At these bacchanals there was usually a "devil" in the form of man or animal who appeared when an old man, surrounded by dancers, played the drum. The devil scratched the children's heads until blood flowed. In an official document of 1600, the senior constable of Mendoza was ordered to stop these revelries because of the harm suffered by the Indians during them.

RELIGION

We know somewhat more of their spiritual culture.

The *Huarpe* god was called Hunuc Huar (the root, huar, is the same in the tribal name). This god, who they imagined dwelt in the Cordillera, was feared and respected. During rituals, the Indians made him offerings of chicha, corn, and other things.

In addition to Hunuc Huar, they also worshiped the sun, the moon, the morning star, and the hills.

The dead were buried to the accompaniment of songs and dances. With the deceased they placed his personal belongings and food and drink for the long journey.

Initiation rites were apparently limited to men. According to the account of a missionary who lived among the *Huarpe* and knew their language, a shaman scratched the scalp of the initiates, collected in his hand the blood from the wound and cast it to the wind. The initiates were then subjected to a prolonged fast.

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INDIANS OF THE PARANÁ DELTA AND LA PLATA LITTORAL

By S. K. Lothrop

INTRODUCTION

The great tidal estuary known as the Río de la Plata, more than 150 miles wide at its mouth, is cut by lat. 35° S. and, therefore, lies approximately at the same latitude as the southern tip of Africa. Two vast river systems, the Uruguay and the Paraná, pour their waters into the Río de la Plata.

The Paraná River rises far to the north, at about lat. 16°30′ S., near the Federal district destined to contain the future capital of Brazil. Hundreds of miles above its mouth the Paraná begins to deposit its burden of silt to form innumerable and ever-varying islands, while from the city of Santa Fé downstream the eastern bank is a wide alluvial plain, swampy in character, cut by a thousand arroyos and intersecting canals. Opposite Constitución, about 124 miles (200 km.) from the Río de la Plata, the Paraná River splits into two main branches, and from here to the river's mouth extends the Delta.

TRIBAL DIVISIONS AND HISTORY

The Indians who once inhabited the Paraná Delta (map 1, *No. 3;* map 2) and its adjacent shores and the banks of the Río de la Plata fall into three categories: (1) On the islands at the mouth of the Paraná lived *Guaraní* Indians, relatively short in stature and thickset, cannibals, agriculturists, fishermen, and hunters. (2) On each shore of the Río de la Plata lived the *Querandí* and *Charrua*, primarily nomadic hunters and fishermen, ignorant of agriculture, tall, and warlike. (3) Upstream from the *Guaraní* in the Delta country there dwelt a number of smaller tribes intermediate in culture: The *Minuané* (*Güenoa*), *Yaró*, *Bohané*, *Chaná*, *Chaná-Mbeguá*, *Chaná-Timbú*, *Mbeguá*, *Timbú*, *Carcarañá*, *Corondá*, *Quiloazá*, and *Colastiné*. Physically and linguistically the relationship of this last group seems to have been with the *Charrua* and the *Guaicurú* to the north; culturally, they show much the same basic pattern, but they had acquired certain *Guaraní* traits, such as permanent villages and agriculture. The nomenclature, geographical distribution, and linguistic affiliation of all these groups are mixed and uncertain.

SOURCES

The Paraná Delta and adjacent plains did not witness the rich conquests or great feats of arms such as took place in other parts of the New World. Hence the literature describing its discovery and the natives who dwelt there is scanty and lacking in detail. Three primary sources may be recognized. Firstly, there are the records of the explorers of the 16th century and the contemporary historians. Secondly, we have the 18th-century writings of the Jesuit missionaries, who both described the surviving Indians and compiled general histories. In addition, there are the earliest scientific travelers such as Azara (1809) and D'Orbigny (1835–47), who, with personal knowledge of the last remnants of the aborigines, published their observations in the beginning of the 19th century. All subsequent studies must be based on these sources.

No single volume contains complete material for interpreting native life in the Paraná Delta. Collections of documents, however, have been published by de Angelis (1910), Lothrop (1932 b), Medina (1897, 1908 a, 1908 b), Outes (1897, 1899, 1910, 1913 b, 1917 b), Ruiz Guiñazú (1915), and Torres (1903, 1911).

CULTURAL SUMMARY

Study of historical sources indicates that the Indians dwelling on the shores of the Río de la Plata and the lower Paraná River consisted primarily of plainsmen related to the *Guaicurú.* Into their midst had come an invading band of *Guaraní*, under whose influence the culture of some of their neighbors had been modified. The interplay of cultural features is summarized in the accompanying table, which combines both historical and archeological data. It should be noted that the blank spaces indicate absence of information rather than absence of a cultural trait.

TABLE 1.—*Cultural traits of tribes inhabiting the Rio de la Plata Littoral and Paraná Delta*[1]

Cultural traits	Tribes									
	Querandí	Charrua	Minuané	Yaró	Chaná	Chaná-Mbeguá	Chaná-Timbú	Mbeguá	Timbú	Guaraní
Fur robe	+	+	+	+	------	+	------	------	+	------
Apron	+	+	+	+	------	------	------	------	+	------
Nose plug	------	+	------	------	+	------	+	+	+	------
Lip plug	------	+	------	+	+	------	+	+	+	------
Earplug	+	------	------	+	+	------	+	+	+	+
Tattooing	------	+	+	------	------	(?)	------	------	------	------
Thatched house	------	------	------	------	------	------	------	------	+	+
Skin windbreak	+	+	+	------	------	------	------	------	------	------
Mat windbreak	+	+	------	+	------	------	------	------	------	------
Canoe	O	+	------	------	+	+	------	+	+	+
Spear thrower	+	------	------	------	+	------	------	------	------	+
Bolas	+	+	+	+	------	+	------	------	------	+
Bow	+	+	+	+	+	+	------	------	+	+
Finger mutilation	+	+	+	+	------	------	------	------	+	------
Head trophy	+	+	+	+	------	------	------	------	------	------
Agriculture	O	O	O	O	O(?)	------	+	+	+	+

[1] +, present; O, absent.

THE GUARANÍ

The "*Guaraní* de las islas" (*Chandris*, *Chandules*) inhabited the southern side of the Paraná Delta from the islands of the Río de la Plata to within a dozen leagues of the Río Carcarañá (lat. 35° S., long. 58° W.). Thus they constituted the southernmost enclave of a very large and widely distributed linguistic family. Although mentioned by all the early explorers, surprisingly little description of them is available, and they appear to have become extinct before the end of the 17th century.

SUBSISTENCE ACTIVITIES

The *Guaraní* of the Paraná Delta cultivated maize and calabashes, and hence they mark the southern limit of agriculture on the eastern side of the continent. In addition, they ate much fish, which they dried in the sun, and, when they could get it, they consumed human flesh.

HOUSES AND VILLAGES

Guaraní houses were thatched. Their villages apparently were permanent, because in the repartimiento of Buenos Aires (1582) "houses of the *Guaranís*" near Corpus Christi are spoken of as a landmark.

DRESS AND ORNAMENTS

Lozano (1873–74) describes them as “very elegant Indians, though ugly on account of the colors with which they make themselves look formidable, and they adorn their shameless nudity and heads only with beautiful feathers.” Ramírez (1897) speaks of plates and earplugs of gold and silver, and Caboto (1908) mentions “a headdress with certain plates of gold and copper, and some low grade silver,” but these metals must have been obtained by trade with other regions for none is to be had locally.

TRANSPORTATION

Their canoes are said to have been well made, and they propelled them with long paddles.

WEAPONS

Of their weapons, we have only the statement of Oviedo y Valdés (1851–55) that they used bows.

SOCIAL CULTURE

We know nothing about their social organization, except that the repartimiento of Buenos Aires lists 12 caciques, each perhaps being the head of a village. In general, they are spoken of as constantly at war with all their neighbors, brave in combat, but exceedingly treacherous.

THE QUERANDÍ

The *Querandí* Indians before the Conquest wandered over the Pampa between Cabo Blanco on the Atlantic coast and the mountains of Córdoba (lat. 35° S., long. 60° W.). Just what happened to them after the Conquest is not entirely clear, so that it may be well to review briefly their history.

HISTORY

In 1536 they fought a drawn battle with the troops of Pedro de Mendoza, at which the historian Schmidel (1903) was present. In 1580 they formed part of an alliance defeated by the second founders of Buenos Aires under Juan de Garay, but their name does not appear in the repartimiento signed by Garay 2 years later, although Díaz de Guzmán (1914) states that they were then divided among the victors. In 1583, under the cacique Guren or Manuá, they attacked and slew Garay as he slept while on his way up the Paraná River to Asunción. In consequence, several *Querandí* chiefs were brought to trial in 1585. Soon afterward, however, they combined with *Mbeguá*, *Quiloazá*, and *Guaraní* in an attempt to win back the region from its conquerors. In 1678 the name of this people appears again, and for the last time, in the encomiendas of Indians distributed among the inhabitants of Santa Fé.

Two explanations of what happened to the *Querandí* are current among Argentine scholars. By some it is believed that they became totally extinct; by others it is asserted that they survived under the name of *Pampa* Indians. For the latter hypothesis there is strong historical support.

Accounts of the *Querandí* are more abundant than those describing their neighbors, except the *Charrua.* Moreover, these data have been brought together and analyzed in a scholarly study published in 1897 by F. F. Outes. All the early sources depict the *Querandí* as a wild, fierce, warlike people—one of the many who once wandered without restraint on the open plains of the southern continent. Schmidel (1903) has compared them to the Gypsies, while Lozano (1873–74), seeing the *Pampa* Indians ahorse, has likened this tribe to the Tartars.

The cultural affiliation of the *Querandí* has been the subject of controversy. It has been claimed that they were affiliated with the *Araucanians, the Guaraní*, or the *Guaícurú.* Comparative tables of historical data assembled and published by Outes (1917 b), however, indicate that the *Querandí*, like the *Charrua* on the eastern shores of the Río de la Plata, shared a basic culture with the *Guaícurú.* At the same time, it seems that the *Querandí* were affiliated also with the tribes to the south and to the west, but the primitive state of these tribes, before modifications due to the acquisition of the horse took place, is practically unknown to us today.

PHYSICAL TYPE

In regard to the physique of the *Querandí*, Oviedo y Valdés (1851–55) on the authority of Alonzo de Santa Cruz (1908), states that they were not so tall as the *Patagonians* (*Tehuelche*), but were taller than the Germans, and that they were a robust people, brown in color. Other authorities, in similar tenor, might be cited. In general, it seems that the migratory tribes of the plains, from the Chaco to the Strait of Magellan, increased in height as one went southward, and probably the *Querandí* fitted into this comprehensive development in stature.

LANGUAGE

Today we know not a single word of the *Querandí* language, although there is a tendency among modern scholars to believe that they spoke a dialect of *Guaícurú*, an opinion based on geographical propinquity and cultural similarity. The name *Querandí* is of *Guarandí* origin and is derived from quira (grease) and ndi, a possessive suffix. Hence it indicates "the people who have grease."

SUBSISTENCE ACTIVITIES

The *Querandí* depended on game, fish, and various roots, but had no agriculture. Guanaco, rhea, and deer caught mainly with bolas furnished their principal meat supply. Both Ramírez (1897) and Oviedo y Valdés (1851–55) state that the *Querandí* were such swift runners that they could catch a deer. They caught fish in the rivers by means of nets. Owing to the lack of water on the plains, they drank the blood of the game that they secured and ate the roots of thistles to quench their thirst. Kroebel (1914) relates that when General San Martín feasted the *Pampa* Indians they drank blood of mares mixed with gin. In preparing fish, they extracted the grease, dried the flesh, and then ground it into a powder which could be kept for some time. The discovery of mortars among archeological remains and the mention of this piscine "flour" has led some writers erroneously to believe that the *Querandí* were agriculturists.

HOUSES

In ancient times the *Querandí* used a windbreak rather than a true house. Oviedo y Valdéz (1851–55) writes: "Their houses are a parapet, like half huts of the skins of deer and animals which they kill, much painted and dressed for protection against wind and rain." Lozano (1873–74) writes that they also had houses made of reed mats.

DRESS AND ORNAMENTS

Querandí clothing consisted of a small apron of cotton or skin and a fur robe. As the *Querandí* had no agriculture and could not have grown the necessary cotton, they must have obtained it by trade from the north. It is stated that they wore headdresses of gold or silver obtained by trade.

WEAPONS

The *Querandí* used bows and arrows, darts, slings, and bolas. We have no description of their bows, but assume they were short like those of the surrounding tribes. When they attacked the first settlement at Buenos Aires, they employed cane arrows with fire on their points and also arrows made from a very inflammable wood, with which they burned the houses and ships of the Spaniards. Their darts are described as half-pikes with stone heads; judged from archeological evidence, they employed spear throwers. They are said to have been exceedingly expert with the bolas and to have caused heavy losses to the Spanish cavalry. In fact, this weapon was the best defense that any of the American Indians had against European horsemen.

WARFARE

They made war after holding a council where each chief gave his opinion and a commander-in-chief was chosen. As a first measure, they hid their women and children. In attacking they took advantage of the terrain, and charged the Spaniards as the latter were involved in the difficulties of crossing a deep stream. Their assault was delivered in fixed formation, but this apparently was not maintained in battle and, as among so many Indian tribes, if their commander was slain they withdrew to appoint another. Their captives were treated with kindness. According to Del Techo (1673), the *Querandí* cut off the heads of the slain and kept them as trophies.

SOCIAL CULTURE

Querandí social organization apparently was loosely drawn, for it is repeatedly stated by early chroniclers that they had no fixed abodes or laws. Probably they were divided into small hunting groups based on kinship, each with its own petty chief.

> They celebrate the birth of their children [writes Del Techo (1673)] with abundance of tears, saying when they are born they begin to die. At the funerals of their kindred, instead of tears they shed abundance of blood.

In sickness, according to Lozano (1873–74), they summoned a shaman who, if death took place, received the blame, and might therefore be killed in retaliation.

Their burial customs are described by Del Techo (1673):

> They carefully keep the bones of their relations; nor is there any affront they revenge with so much war and slaughter, as for upbraiding of them that the bones of their ancestor have been lost for want of looking after. They honor their dead caciques by killing their slaves, believing them to be sent after their masters to serve them.

Lozano (1873–74) states that the *Querandí* cut off a finger joint as a sign of mourning. This custom existed among other tribes of the vicinity but is not assigned to the *Querandí* by contemporary writers.

Our knowledge of *Querandí* religion is confined to the supercilious remark of Lozano (1873–74) that they were "finísimos ateistas (finest atheists)."

THE MINUANÉ OR GÜENOA

HISTORY

Neither the name *Minuané* nor *Güenoa* appears in the earliest literature, and there is no mention of them until the publication of missionary works. Most writers have assumed that the names refer to separate tribes, but we treat them as a single group, because of a very definite statement by Lozano (1873–74) that the two were one. Azara

(1809), who has given us the most detailed account, states that their original home was on the plains of Entre Ríos to the north and northwest of the Paraná Delta (lat. 33° S., long. 59° W.), and that in 1730 they crossed to Uruguay, where they allied themselves with their *Charrua* kinsmen in various wars against the colonists of Montevideo.

CULTURE

The *Minuané*, like the *Charrua*, were nomadic huntsmen of the plains. In general, the culture of the two tribes was identical, though to us it seems possible that this similarity became more pronounced after the *Minuané* had moved to Uruguay. Azara's (1809) long list of features in which the *Minuané* resemble the *Charrua* includes an absence of agriculture, rank, musical instruments, games, and dances; and a similarity of garments, household effects, weapons, and methods of making war, dividing booty, and settling quarrels. In some respects, however, the two tribes differed.

On the death of a man, his wife and daughters cut off a finger joint. They also cut off part of their hair and allowed the remainder to cover their faces; they covered their breasts with a piece of cloth or skin and remained in their huts for several days. The men went through a ritual resembling that of the *Charrua*, but lasting only half as long. They pierced themselves, however, not with wooden rods, but with large fish spines, inserted at intervals of about an inch (2.54 cm.) in the back and front of their legs, and in their arms up to the elbow, but not up to the shoulder.

THE YARÓ

HISTORY

This tribe is not mentioned in the earliest literature. According to Azara (1809), they lived on the east side of the Río de la Plata between the Río Negro and the Río San Salvador (lat. 35° S., long. 57° W.). Hervás (1800–05) groups their language with *Charrua*, but Azara (1809) claims that it was distinct. They were finally exterminated by the *Charrua*, to whom they were closely related in culture.

Sepp (1732) writes that physically *Yaró* men were "much of the same size as Europeans, but not quite so tall." Their faces were round and flat, and of an olive color; their legs were thick and large-jointed.

CULTURE

The *Yaró* practiced no agriculture, but subsisted on rhea and other birds, venison, and fish; during the Colonial epoch they lived chiefly on wild cattle.

Their houses are described as roofless straw huts evidently corresponding to the roofless squares of mats used by the *Charrua*, *Abipón*, *Frentones*, and others. Household furniture included vessels hollowed out of wood, spits, and skins for a couch. Sepp (1732) writes that one of their chiefs slept in a hammock. This statement is of interest because it marks the southern limit of the hammock.

Both sexes wore a short skin apron and at times fur robes. Women wore their hair loose over the forehead, with braided tresses falling down the back, while the men apparently allowed their hair to hang free over their shoulders. For adornment, they inserted labrets of fishbone or feathers in their lips. Ornaments of fishbone, shell, or feathers hung from their ears, and they wore necklaces wrought of the same material.

Yaró weapons included the bow and arrow and bolas. Men are described as carrying arrows in their hand, from which we conclude that, like the *Tehuelche*, they used no quivers. With the bolas they were so expert that they could hit a bird on the wing.

The imperfection of our knowledge of *Yaró* social organization is illustrated by Del Techo's (1673) naive statement that they had no "government." Sepp (1732), however, describes a chieftain, evidently of some authority, who, like his wife, was distinguished by his dress. Men were forced to undergo a rigorous initiation ceremony, during which they cut themselves severely.

The *Yaró* practiced finger mutilation at the death of a relative, as did their neighbors; some persons had nothing left but the palms of their hands. According to Sepp (1732), this was a custom of the men, an entire finger being taken off at a time. Del Techo (1673) does not specify the sex, but asserts that only a joint was removed at each death.

THE BOHANÉ

Azara (1809) locates this small tribe just north of the *Yaró* across the Río Negro (lat. 34° S., long. 57° W.), and states that they also were exterminated by the *Charrua*. Hervás (1800–05) places their tongue in the *Charrua* group. Nothing is known about *Bohané* culture.

THE CHANÁ

HISTORY

In the 16th century there appear to have been two groups of *Chaná* Indians, living respectively in the vicinity of Sancti Spírtitu and on the islands opposite the mouth of the Río Negro (lat. 34° S., long. 58° W.); these maintained their separate identities during the Colonial epoch. The tongue of the *Chaná* is described by Oviedo y Valdés (1851–55) as guttural, a statement born out by Larrañaga, who compiled a vocabulary and grammar published by Lafone Quevedo (1922) and Torres (1911).

CULTURE

The *Chaná*, like the neighboring *Charrua*, *Yaró*, *Bohané*, and *Mocoretá*, had no agriculture, but are said to have eaten algarroba beans, which grew wild in their vicinity. Their chief sustenance came from hunting and fishing. Their weapons are reputed to have been the bow and arrow and the spear and spear thrower. In the 18th century they still made excellent pottery and used canoes.

Azara (1809) writes that, like the *Guaraní*, they disinterred the bodies of their dead after the soft parts had perished in order to paint the bones with ocher and grease, and bury them anew with their accouterments. The children, he adds, were buried in great pottery urns, filled with ocher and earth, and covered with broad plates.

THE CHANÁ-MBEGUÁ

This tribe is mentioned by Pero Lópes de Souza (1861) and by Oviedo y Valdés (1851–55). The latter places them on the northern side of the Delta (lat. 35° S., long. 59° W.) opposite the *Chaná-Timbú*, who, he says, spoke the same tongue. López (1861) encountered them at the mouth of the Paraná River, but exactly where we do not know.

The woman and three men he saw were clad in skins. The woman wore her hair in a braid, and had lines painted or tattooed beneath her eyes. They all had caps made from the heads of jaguars, complete even to the teeth. They used small canoes, in contrast to the *Charrua* and *Timbú*, who had large ones.

THE CHANÁ-TIMBÚ

Of the *Chaná-Timbú* we know practically nothing. Ramírez (1897) lists them among the "other nations" living near Sancti Spíritu at the mouth of the Río Carcarañá (lat. 35° S., long. 60° W.) and García de Moguer (1908) states that they lived on the other part of the river from the "*Caracaraes*." These writers, however, both distinguish them from the "*Timbus*" or "*Atambies*," which gives us reason to think that, if not a distinct tribe, they were at least a subtribe of the *Timbú* or *Chaná*. In addition, Oviedo y Valdés (1851–55) writes that they occupied the south side of the Delta opposite the *Chaná-Mbeguá* and that both spoke the same tongue.

Oviedo y Valdés (1851–55) also says that the *Chaná Timbú* were of greater stature than any other tribe of the Paraná Delta, and that they normally went naked, although they had some skins of deer and otter. Their diet, in addition to the flesh of these animals, consisted of fish and maize. They also grew "calabashes," which perhaps means squashes.

THE MBEGUÁ

The *Mbeguá* (*Beguae*, *Ameguae*) hover in the dawn of history; we know very little about them. Oviedo y Valdés (1851–55) states that "upstream from these [*Guaraní*] is another people called *Beguaes*, who live on the south side of the same river [lat. 35° S., long. 60° W.]; they are few in number, and when the river rises they move to the south shore . . ."

Culturally, the *Mbeguá* seem to have resembled their neighbors, the *Querandí*, but they had acquired the art of agriculture, for Oviedo y Valdés (1851–55) says that "they maintain themselves by fishing and they sow something." From Herrera (1601–15), we learn of "*Ameguaes* Indians, who live by fishing, and who gave [the Spaniards] provisions consisting of a great quantity of fish and supplied them with canoes." Ramírez (1897) denies that they practiced agriculture, but suggests that they wore nose, ear, and lip plugs like the *Timbú*. Lozano (1873–74) writes that the *Mbeguá* sold their Spanish captives to the *Chaná*.

THE TIMBÚ

HISTORY

The *Timbú* (*Atambi*) Indians formerly dwelt on the islands of the Paraná River opposite and upstream from the mouth of the Río Carcarañá, and probably also on the eastern shore of the Paraná River, where to this day exist small streams known as Timbo Colorado and Timbo Blanco (lat. 33° S., long. 60° W.). They numbered, according to Díaz de Guzmán (1914), about 8,000, but Schmidel (1903) believes there were approximately 15,000. No trace of their language is known, but it is generally assumed, on the basis of cultural evidence, that they belonged to the southern *Guaycurú* stock.

PHYSICAL APPEARANCE

The *Timbú* (fig. 23) seem to have been the tallest of all the tribes living near the lower Paraná River and Río de la Plata. Schmidel (1903) writes that the men were tall and erect, but that the women were disfigured by scratched and bloody faces.

CULTURE

Subsistence.—Schmidel (1903), who lived among the *Timbú* for some time, explicitly states that "these people have nothing else to eat, and have all their lives through lived on nothing else but fish and meat." Oviedo y Valdés (1851–55), going into greater detail, writes:

> They sustain themselves by fishing, of which they have great abundance; and they extract from the fish a large amount of fine grease, of which the Christians

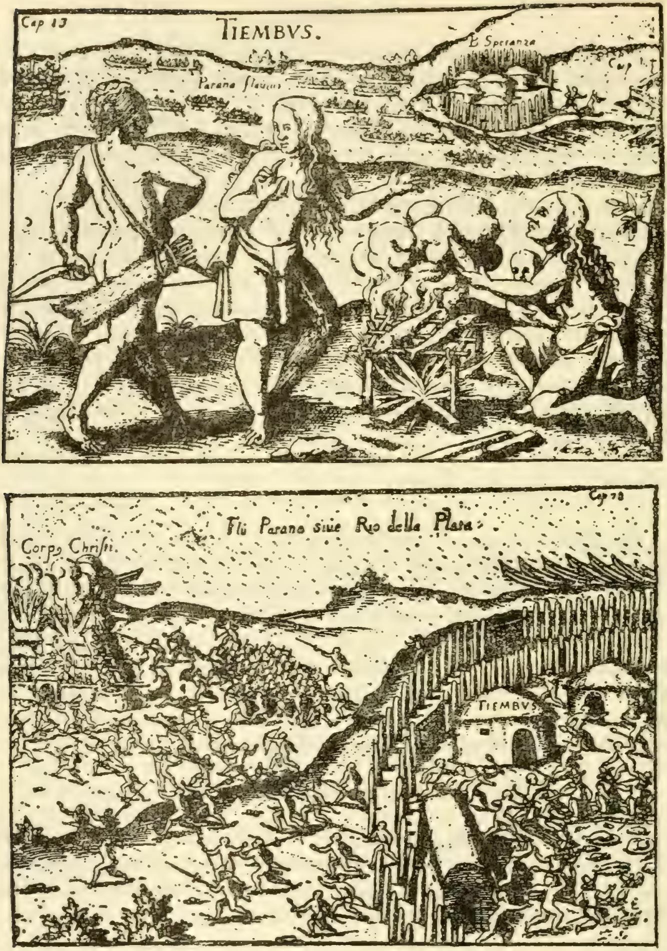
Cap 13
TIEMBVS.
Parana fluuius
E Speranza
Cap
Cap 78
Flü Parano siue Rio della Plata
Corpꝰ Christi.
TIEMBVS

FIGURE 23.—Early drawings of the *Timbú.* *Top: Timbú* Indians. *Bottom:* Attack on Corpus Christi by the *Timbú.* (After Schmidel.)

make much use both for burning in candles and for dressing deer skins. . . . They have many deer, and rheas, and sheep like the large ones of Perú, jaguars, otter, and other animals which appear like rabbits, and others of other kinds.

On the other hand, Ramírez (1897), an authority of importance, declares that "they sow maize and calabash and beans, and all the other nations do not sow and their food is meat and fish." García de

Moguer (1908) also claims that the "*Atambies*" ate maize, while Díaz de Guzmán (1914) lists the food which the chieftain Mangoré carried to Nuño de Lara at Sancti Spíritu as "fish, meat, honey, butter (grease), and maize."

Among the customs attributed to the *Timbú* is eating earth fried in fish grease, which is said to have been a favorite food. This diet has not been noted among any of the neighboring tribes, but has a wide, though sporadic, distribution throughout the New World.

Houses.—*Timbú* houses, according to Oviedo y Valdés (1851–55), were covered with rushes and were subdivided into apartments.

Dress.—Concerning the dress of the *Timbú*, Schmidel (1903) states that, like the *Corondá*, they wore a small cotton cloth from the navel to the knee, while Oviedo y Valdés (1851–55) says that they wore garments and footgear of deerskin.

Ornaments.—Both men and women had holes bored in their noses and ears for the insertion of small stones, white, blue, or green in color, while the men also pierced the lower lip for a labret. Lozano (1873–74) writes that both men and women painted their bodies with clay, but that this adornment was permitted only to those who had partaken of human flesh.

Canoes.—Schmidel (1903) writes that the *Timbú* possessed more than 400 canoes, each with a crew of 16 men.

> Such a skiff [he says] is made out of a single tree, eighty feet [24.4 m.] long and three [1 m.] wide, and must be rowed as the fisherman's boats in Germany, only that the oars are not bound with iron.

Márquez Miranda (1930) has published plans and description of a very different type of *Timbú* boat, short and broad, partly decked over forward.

Warfare and weapons.—How a *Timbú* warrior appeared is pictured by Barco Centenera (1912) and by Lozano (1873–74). The latter describes an Indian near Santa Fé who wore "for a helmet the hide of an elk; for shield a great shell of a certain fish [turtle?], his quiver and bow on his shoulder, and in his hands a staff proportionate to the incongruous height of his body." More specifically, Ovideo y Valdés (1851–55) states that their weapons included the spear thrower and dart, as well as the bow and arrow.

Cannibalism.—The charge of cannibalism against the *Timbú* rests primarily on Oviedo y Valdés (1851–55) and has been repeated by subsequent writers. Lozano (1873–74), probably on the authority of an ambiguous passage in Del Techo (1673), extends it to the neighboring *Quiloazá* and *Colastiné*, and states that no one could paint the body until he or she had eaten human flesh. Several writers, basing their argument in large part on the claim that the *Timbú* were cannibals, have believed the *Timbú* to have been of *Guaraní* extraction. We believe that the weight of evidence points otherwise, and that the *Timbú* should be grouped physically, culturally, and probably linguistically with the *Chiná-Timbú*, *Chaná*, and *Charrua.* At the same time, the *Timbú* having acquired agriculture, probably from *Guaraní* influence, had come to occupy permanent houses and village sites.

Death observances.—Cutting off the joint of a finger on the death of a relative was customary among *Timbú* women; after the fingertips had gone, they cut off the outer joints of the toes. Ramírez (1897) declares that there were women without a single outer phalanx on hand or foot, and that they said they did this on account of the great grief they experienced upon someone's death. Lozano (1873–74) further states that this tribe adorned graves with rhea plumes and planted upon the spot an umbú tree (*Phytolacca dioica*) to which the relatives returned to bewail the deceased.

THE CARCARAÑÁ

This tribe, of whose name many variants can be found, presumably lived on the banks of the Río Carcarañá (lat. 32–33° S., long. 60–61° W.). According to Del Techo (1673), they numbered about 8,000. All the early writers link them with the *Timbú*, who dwelt in the Delta country across the Paraná River, and it is evident that these two tribes were not only on friendly terms but were practically identical in culture.

THE CORONDÁ, QUILOAZÁ, AND COLASTINÉ

These three tribes lived on the Paraná River islands above the *Timbú.* The fullest account is by Schmidel (1903), who describes them as resembling the *Timbú* in culture, physique, and language. Lozano (1873–74) does not depict them individually, but by listing them with the *Timbú* implies that no important differences existed.

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THE CHARRUA

By Antonio Serrano

TRIBAL DIVISIONS AND HISTORY

If the present territory of the Republic of Uruguay extended north to the Ibicuy and Camaquan Rivers in Brazil and west to the Gualeguay River and the southeastern corner of the Province of Corrientes south of Yapeyú in Argentine territory, we should have the approximate geographical area occupied by the *Charrua* (lat. 34° S., long. 55° W.) (map 1, *No. 4;* map 2). According to accounts of 16th-century travelers, the Atlantic coast to the east more or less at lat. 34° S. was occupied by the *Arechane*, a non-*Charrua* people. Speculation based on a comparison of the archeology of the region with historical information suggests that perhaps the *Arechane* were *Guayaná* whose speech was influenced by *Guaraní.*

Archeology.—The archeology of this large territory is comparatively well known. Except for sporadic elements corresponding to the lithic culture of southern Brazil and attributable to the ancient *Guayaná* and several scattered elements of *Guaraní* origin, all the archeological material belongs to a culture related to that of Patagonia. This culture, which the *Charrua* developed, is characterized by a worked-stone industry similar to that of Patagonia, by the presence of many round and star-shaped stone balls for bolas, and by polished or engraved pottery made in globular shapes and without handles. The sculptured stones, of which only two examples from the middle Uruguay River are known, probably belong to this culture (pl. 42, *d*, *g*).

To the south along the Río de la Plata near Montevideo are distinctive elements characteristic of the area occupied by the *Chaná-Timbú.* Among these is the "thick pottery" which coincides distributionally with the territory of these Indians, i. e., the banks of the Paraná River.

Tribal divisions.—The name *Charrua*, according to usage of the first travelers of the 16th century, designated only the nuclei which lived along the littoral but traveled into the interior. Eventually it became a generic term for all the groups which were culturally and linguistically related to them. These groups, known more or less exactly through Jesuit mission records of the 17th century, are the *Yaró, Güenoa, Bohané, Minuané,* and *Charrua.* Their 17th-century distribution is indicated in map 2.

The *Güenoa* were known to some early Spanish authors as *Minuané* and are called the latter name today in the Brazilian literature. According to Abbot Hervás and others, the true generic name of the Indians with whom we are concerned should be *Güenoa,* not *Charrua,* as the latter is merely the designation of one of the five principal divisions. (See also pp. 183–184.)

Each of these divisions was made up of subtribes, some names of which have been recorded. The *Cloya* were a small subtribe of the *Güenoa* during the 17th century. The *Guayantiran*, *Balomar*, and *Negueguian* were groups of *Charrua* in Entre Ríos during the 18th century. Colonization of Entre Ríos and missionary efforts to convert the eastern groups disrupted the geographical distribution of the different tribes. The *Minuané* went to Uruguay in 1730 and made a defensive and offensive alliance with the *Charrua*, who thereafter went to the Paraná River, attacking and robbing the stock farms established by the Spaniards. The *Yaró*, who occupied the eastern side of the Uruguay River, south of the Río Negro, deployed toward the western side of the Province of Entre Ríos.

PHYSICAL CHARACTERISTICS

The *Charrua* were very tall. D'Orbigny, who saw them in 1829 in the vicinity of Montevideo, gave an average stature of 5.4 feet (1.66 m.) for women and 5.5 feet (1.68 m.) for men. They had wide faces, prominent cheek bones, copper skin, straight, coarse hair, and a sad, taciturn expression that escaped no one who observed them (pl. 41).

LANGUAGE

Present knowledge of the *Charrua* language is limited to 70 words and the numerical system. The latter is based on four, the first numbers being: One, yu or yut; two, sam; three, deti or detit; four, betum. Five is "four and one," betum yu, and so on to eight, which is "two times four," betum arta sam. Nine is baquin; ten, guaroj.

The *Charrua* language appears to be a dialect of *Chaná* and is apparently related to the *Caingang* of Río Grande do Sul. Previously, it was considered to be an isolated language.

CULTURE

SUBSISTENCE ACTIVITIES

Charrua economy was based on hunting, on gathering wild fruits and roots, and, in less degree, on fishing. The introduction of the horse facilitated economic life. After the Conquest, the *Charrua* lived chiefly on the wild cattle which overran the Banda Oriental. The *Charrua* traded hides of horses and wild cattle to the Spaniards for yerba maté, tobacco, and liquor.

HOUSES

Charrua houses were constructed of four poles set in the ground and covered with straw mats which served as roof and walls. During the summer, the Indians reduced this habitation to a single mat set up as a wind screen. When horses had become abundant on the undulating Uruguayan plains, the *Charrua* ceased to use grass mats

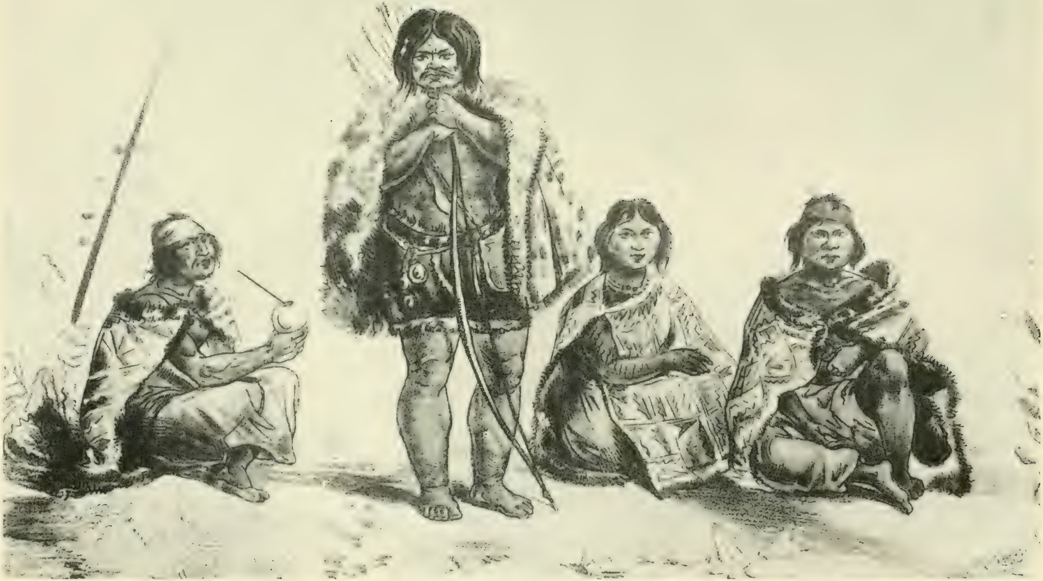

PLATE 41.—**Group of Charrua, 1832.** (After Rivet.)

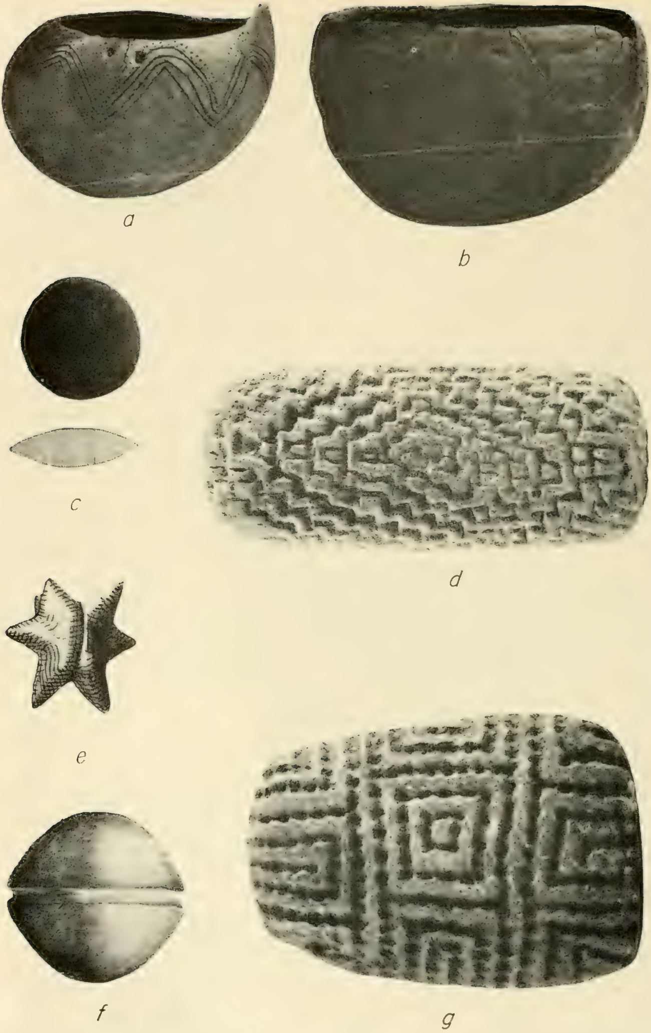

PLATE 42.—**Charrua pottery and stonework.** *a*, *b*, Pottery vessels from Colón, Río Uruguay country, Argentina; *d*, *g*, carved stone plaques, Río Uruguay country, Argentina, length of *d* $8\frac{1}{2}$ in., or 22 cm.; *c*, lenticular stone, Monte Caseros, Argentina, $\frac{1}{2}$ natural size; *e*, skull cracker, Uruguay, $\frac{1}{3}$ natural size; *f*, bola, Entre Ríos, Argentina, natural size. (All objects after or by courtesy of Antonio Serrano.)

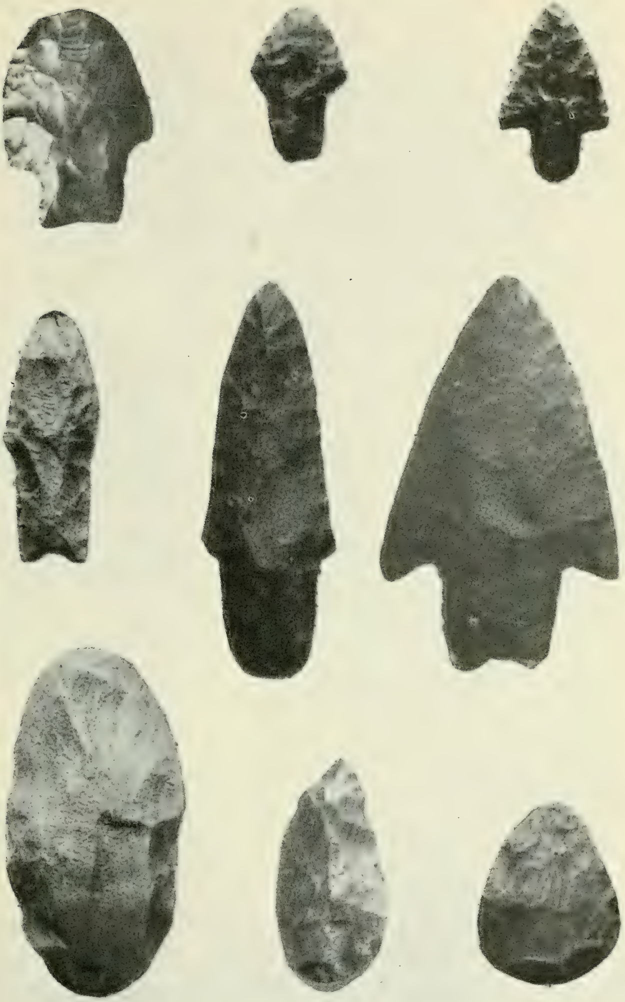

PLATE 43.—**Projectile points from the middle Río Uruguay.** (After Serrano.)

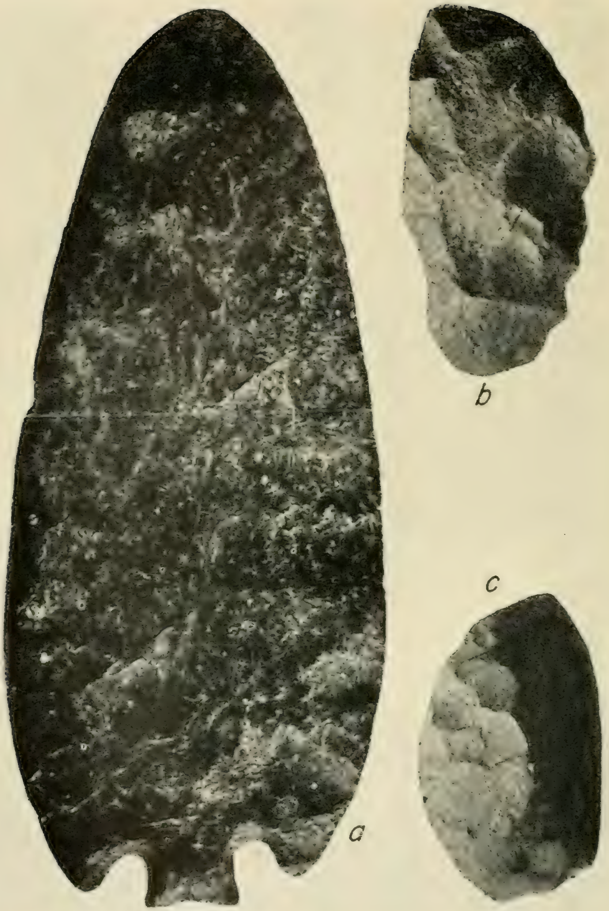

PLATE 44.—**Chipped-stone artifacts, Charrua territory.** *a*, Lance point, Monte Caseros, Argentina, length 5 in., or 18 cm.; *b*, *c*, scrapers (?), Río Uruguay country, respective lengths, 3 in., or 7,5 cm., 3½ in., or 9 cm (After Serrano.)

and constructed their nomad dwellings (toldos) of horse skins sewed together and supported on fixed stakes.

Father Sepp (1940) mentions the use of netted hammocks by *Yaró* chiefs.

DRESS AND ORNAMENTS

The *Charrua* tattooed the face with blue lines, the number and location of which varied according to the tribe. Some groups also tattooed the body. They painted themselves according to circumstances; for war, for example, they painted their jaws white. They perforated their ear lobes for pendants of mollusk shell, bone, and even colored feathers, as among the *Yaró*, Pero Lópes de Sousa, in the 16th century, wrote that they bored holes in their nostrils, and inserted shining pieces of copper. They also wore long, thin lip plugs (tembetas). Necklaces and bracelets made of small, circular mollusk-shell beads and of feathers completed their adornment.

Clothing consisted of a simple deer hide fastened to the belt like an apron and, during winter, the classic fur robe of the type worn in Patagonia and the Chaco (pl. 41). It was made of the skins of small mammals cured with ashes and grease, sewn together, and painted with panels and geometric drawings. Azara states that in his day *Charrua* men usually went naked, but put on a skin shirt and poncho in cold weather, while women habitually wore a poncho or sleeveless cotton shirt.

Both men and women wore their hair long, and combed it with their fingers to remove the vermin. Women did not confine their hair, but men made a knot at the back of their necks and inserted white feathers.

TRANSPORTATION

As the *Charrua* seem to have lived on fish more at the time of the Conquest than in later centuries, when the horse facilitated hunting huge herds of wild cattle, canoes formerly played an important part in their primitive mode of life. Pero Lópes de Sousa (1927) writes of the Indians seen near Montevideo in 1531:

> Their canoes were 10 to 12 fathoms in length and half a fathom in width; the wood was cedar, very beautifully worked; they rowed them with very long paddles decorated by crests and tassels of feathers on the handles; and 40 standing men rowed each canoe.

D'Orbigny, however, writing in the 18th century, declares that the *Charrua* had no fishing, navigation, agriculture, or weaving. Atrophy of the native culture evidently had taken place between the 16th and 18th centuries.

MANUFACTURES

Pottery.—Pottery, mentioned by only one early author, is known through archeological finds in sites with a typical *Charrua* culture. The documentary reference to ceramics is in Vilardebó (Gómez Haedo, 1937) who says, "their utensils are vases of black clay which they dry in the sun until they are hard. In these vases they cook rhea flesh." Archeological materials show that the pottery in sites of the typical culture are characteristically subglobular and never have handles (pl. 42, *a*, *b*). The vessels are generally polished or decorated with incised lines or zigzags. In the basin of the lower Río Negro and Uruguay River, there is a type of ceramics with more complete decoration, which occasionally has handles; it is similar to that of the Paraná Delta and the Paraná Basin, which seems to correspond to *Chaná* rather than to *Charrua* ware.

Weapons.—The characteristic weapons were bows and arrows, quivers, bolas, slings, and spears. The *Charrua* were good bowmen, and the hunting range of their arrows was up to 100 yards (92 m.). Their arrows and spears were tipped with tanged stone heads (pls. 43, 44), but some spears had fire-hardened tips. Their bolas (pl. 42, *f*) originally consisted of a single stone attached to a cord adorned at the end by a tuft of rhea feathers. After the Conquest, the two- and three-ball types came into use. With the advent of horse transportation, the *Charrua*, like other Indians of the southern plains and of Chile, fought with great lances 12 feet (4 m.) long.

For the sling, the *Charrua* used sharp pebbles which they threw with great skill. The so-called "sling stones"—carefully shaped lenticular stones (pl. 42, *c*)—appear really to be a special type of bolas stone.

Along the Uruguay River, in places where stones abound, the author has found true workshops where the *Charrua* made their stone arms and utensils.

SOCIAL AND POLITICAL ORGANIZATION

Each tribe was independent of the others, but for warfare several tribes united under a chief chosen from among the bravest or most powerful men.

Each family consisted of 8 or 10 persons occupying a single toldo. The bands consisted of 8 to 12 families under a chief whose authority was not great. The heads of families, however, formed a sort of council which ran the encampment and posted sentries, but obedience to their decision was purely voluntary. Quarrels were settled by fist fights.

WARFARE

The *Charrua*, like most Indians of the southern plains, were fierce and indomitable warriors. Methods of warfare were simple. After hiding their women and children in some wooded place, the warriors sent scouts ahead and advanced cautiously to surprise the enemy. With wild shouts, they mercilessly attacked. They spared the women and children, but afterward incorporated prisoners into the tribe and treated them with kindness. They are said to have skinned the heads of fallen foes and kept the skulls as perpetual trophies, making ceremonial drinking cups of them.

LIFE CYCLE

Puberty.—A girl's puberty was celebrated with special ceremonies of unknown purposes. Azara (1809) describes three vertical blue lines tattooed on girls' faces at their first menstruation.

Marriage took place at the age of puberty. A woman ordinarily married the first man who asked her. Polygyny, though permitted, was restricted by the fact that a childless woman often abandoned a polygynous man to marry someone else. Adultery, if discovered, led to fist fights, but was not otherwise penalized.

Death observances.—A corpse, according to Azara (1809), was carried to a cemetery amid much wailing, and interred with weapons and utensils while a friend or relative slaughtered a horse on the grave. Pero Lópes de Sousa (1927) described a 16th-century cemetery which had a circle of upright stakes encompassing some 30 burials, and much abandoned property, such as nets, skin cloaks, and spears. Lozano (1874, 1:408) writes, however, that "they carry the bones of their deceased relatives wherever they wander, love making very light for them this stinking cargo." These seemingly contradictory statements probably indicate that each group had its own cemetery, and if death took place at a distance, they carried the body to their own place of burial.

After the burial of a relative, both sexes observed a long and painful period of mourning. Azara (1809) wrote that the women cut off a finger joint, and lacerated their arms, breast, and sides with the knife or lance of the deceased. They then retired to their huts, and remained two moons with little food. This authority states that because a deceased man's wives and sisters underwent this trial, there were no adult women who did not lack finger joints and were not covered with scars. Lópes (1927), however, attributes this custom to the men, and adds that he saw many old men who had sacrificed all their fingers and had only the thumbs remaining.

Charrua men, in later times, did not mourn the death of a wife or child, but all adult males underwent a painful ritual on the death of a father. They remained naked in their huts for 2 days, eating only tinamou flesh and eggs, after which a friend or relative appeared at nightfall with a quantity of short rods, which he thrust through the flesh of the mourner from wrist to shoulder. Thus arrayed the mourner went naked into the woods, fearless of wild beasts, from which he now believed himself to be immune. With an iron-shod stick, he dug a deep hole, in which he passed the entire night covered to his chest with earth. At dawn, he went to a small hut, especially reserved for mourners, where he presumably removed the rods from his flesh. For 2 days he lay without water or food. For the next 10 or 12 days children brought him small quantities of partridge meat and eggs. During this time he could speak with no one.

ESTHETIC AND RECREATIONAL ACTIVITIES

Charrua artistic motivations were expressed in the geometric drawings on the backs of fur robes, in some geometric pictographs, and in pottery designs.

Among games presumed to be of native origin was that of throwing the bolas around a stake driven in the ground. After contact with the Spaniards, they played cards.

RELIGION

We know little of *Charrua* religious ideas. These tribes believed in an evil spirit, which they invoked but did not make the object of cult worship. They had shamans who invoked the spirit and who were thought to have power to control the forces of nature.

A recently discovered manuscript (Gómez Haedo, 1937) states that young men went into the wilderness to fast until a spirit, who was to become their guardian angel, appeared to them.

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Part 2. Indians of the Gran Chaco

ETHNOGRAPHY OF THE CHACO

By Alfred Métraux

GEOGRAPHY

The name Chaco, which seems to be derived from a *Quechua* word meaning "hunting ground," is applied to the vast plain which lies in the center of the South American Continent between the fringe of the Matto Grosso Plateau and the Argentine Pampa.

Geographically, the Chaco is a depressed area, bordered on the west by the first ranges of the sub-Andean mountains, and on the north by the low hills and summits detached from the central Brazilian massif and from the Sierras de San José and San Carlos, south of Chiquitos. On the east the Chaco is bounded by the Paraguay and Paraná Rivers and by the widely scattered rocky hills which rise along the Paraguay River. To the south it ends at the foot of the Sierras de Córdoba and Guayasán. Between these mountains and the Paraná River there is a wide gap where the Chaco merges without marked transition into the Pampa.

The present-day boundaries of the Chaco as a culture area do not coincide with those of the Chaco as a geographical entity (map 1, *No. 5;* maps 4, 5). The sub-Andean range of hills (Western Cordillera) lying north and south of the Pilcomayo River falls within the habitat of the *Chiriguano* and *Chané*, two tribes that culturally and linguistically have little or nothing in common with the Chaco peoples. Until a few years ago (1935–37?) many *Chané* had their villages on the lower Parapití River, but they now have been settled by the Paraguayan Army near López de Filippis in the very heart of the Chaco. For purely cultural reasons, the Parapití River and the marshes of Izozog mark the northwestern limits of the Chaco. On the east, however, there was a close correspondence between natural and cultural boundaries until the end of the 17th century, when the *Mbayá* invasions into the regions east of the Paraguay River annexed to the Chaco culture area the *Guaraní* lands situated between the Apa and the Miranda Rivers.

Physical features.—The Chaco plain slopes gently toward the east and more sharply toward the southeast. In the extreme north there rises a quartz plateau, 1,800 feet (550 m.) above sea level, with isolated summits (Cerro San Miguel and Cerro Chico). This whole region is still little known and shelters a few *Zamuco* tribes (*Moro*, *Guarañoca*, *Tsirakua*) who have never had any contacts with White people. In the south there is an area of great depression with large salt marshes.

The soil of the Chaco, like that of the Pampa, is a clayish loess. Not a stone can be found over most of its extension. In many parts of the Chaco, especially in dried lagoons and marshes, the ground is covered with a thin crust of salt.

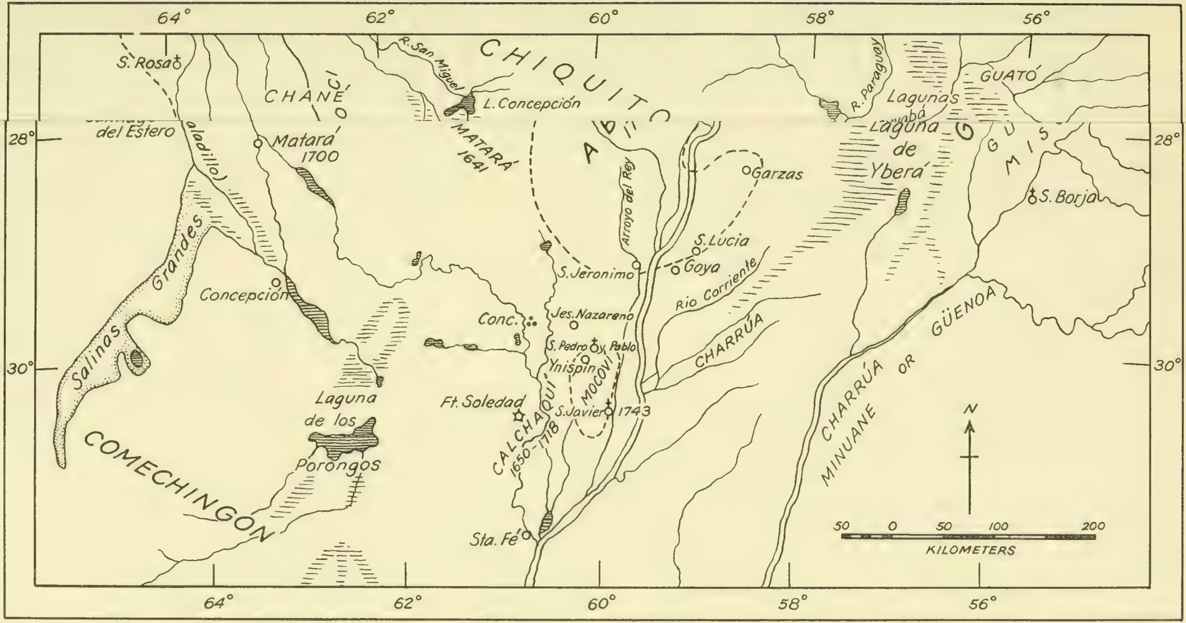
Water system.—Of the many rivers which originate in the Andes and flow into the Chaco, only the Pilcomayo River, the Bermejo River, and Río Salado reach the Paraguay or the Paraná Rivers; the others are lost in the sands, though some in earlier times dug beds hundreds of miles long, which in the rainy season are full of marshes, pools, and lagoons.

The most important river in the Chaco is the Pilcomayo. Along its upper course it is paralleled by dry river beds and cañadas which it supplies with water during the annual floods. At about its middle course the Pilcomayo no longer flows between cliffs, but disappears into the Estero Patiño, a huge marshy tract, lying between the Dorado and the Porteño Rivers. When it reappears at the other end of the Estero Patiño it is divided into two branches, the Brazo Norte and the Brazo Sur. Farther on, these two main arms join again and flow into the Paraguay River, near Lambaré. The lower course of the Pilcomayo River is also a region of swamps, lagoons, and cañadas.

The greatest floods of the Pilcomayo River occur during the summer months, February to April, but most of the water is absorbed by the marshes of the Estero Patiño.

Like the Pilcomayo River, the Bermejo River loses its valley on entering the Chaco plain, where it follows a most capricious course. In 1868, its waters took a northerly direction and now flow through the Teuco River. Between the old dry bed and the new one there are innumerable lagoons, cañadas, and madrejones. The two branches meet again around lat. 25°45′ S., where the river assumes once more the name of Bermejo River. The Bermejo is a typical Chaco river, continually changing its course, traveling from one stream bed to another, cutting its meanders, and forming new branches which are later destroyed (pl. 45).

The third important river of the Chaco is the Río Salado, which on its upper course is known as the Pasaje or Juramento River. As a result of the river's past deviations, the whole southern Chaco is furrowed by a system of dry beds and cañadas.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S. Lucia
Goya
S. Jeronimo
Rio Corriente
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Jes. Nazareno
S. Pedro y Pablo
Ynispin
MOCOVI
S. Javier
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CALCHAQUI
1650-1718
Laguna
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Porongos
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Sta. Fe
CHARRUA
R. Paraguay
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Ybera
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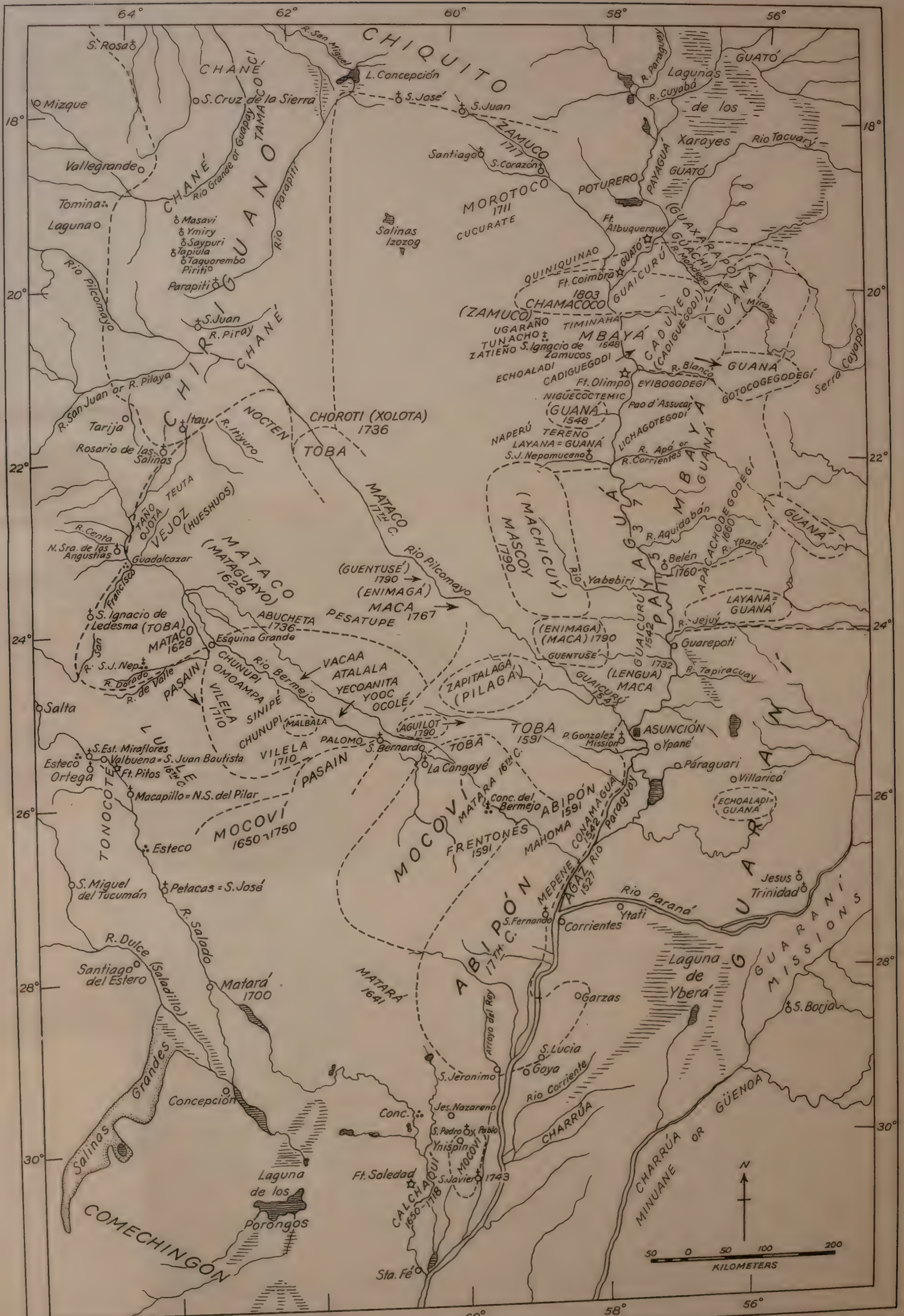
GPO O - 46 - 583486 (Face p. 198)

MAP 4.—Tribes of the Gran Chaco: Locations at the first European contact.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CHANÉ
CHIRIGUANO
TAMACOCI
ZAMUCO 1717
MOROTOCO 1711
CUCURATE
POTURERO
PAYAGUA
GUATÓ
GUAXARAPO
GUACHI
GUAICURÚ
QUINIQUINAO
CHAMACOCO 1803
(ZAMUCO)
UGARAÑO
TUNACHO
ZATIEÑO
TIMINAHA
MBAYÁ 1548
CADUVEO (CADIGUEGODI)
GUANA
ECHOALADI
CADIGUEGODI
EYIBOGODEGI
GOTOCOGEGODEGI
NIGUECOCTEMIC
GUANA 1548
NAPERÚ
TERENO
LAYANA = GUANA
LICHAGOTEGODI
MBAYÁ GUANA
APACACHODEGODEGI 1660
LAYANA = GUANA
PAYAGUÁ 1542
(MACHICUÝ)
MASCOY 1790
(ENIMAGA) (MACA) 1790
GUENTUSÉ
GUAICURÚ 1542
(LENGUA) MACA 1732
GUAICURÚ 1542
ZAPITALAGÁ (PILAGÁ)
TOBA 1591
AGUILOT 1790
TOBA 16TH C.
MATARÁ
ABIPÓN 1591
MAHOMA
FRENTONES 1591
CONAMAGUA 1542
MEPENE
AGAZ 1527
MOCOVÍ
ABIPÓN 17TH C.
MATARÁ 1641
MOCOVÍ 1743
CALCHAQUÍ 1650-1718
CHARRÚA
CHARRÚA OR MINUANE
GÜENOA
GUARANÍ
GUARANÍ MISSIONS
ECHOALADI GUANA
CHOROTI (XOLOTA) 1736
TOBA
NOCTEN
MATACO 17TH C.
(GUENTUSÉ) 1790
(ENIMAGÁ)
MACA 1767
PESATUPE
MATACO (MATAGUAYO) 1628
ABUCHETA 1736
VACAA
ATALALA
YECOANITA
YOOC
OCOLÉ
CHUNUPI
OMOAMPA
SINIPÉ
VILELA 1710
PASAIN
MALBALÁ
PALOMO
VILELA 1710
PASAIN
MOCOVÍ 1650-1750
LULE
TONOCOTÉ
MATACO 1628
VEJOZ (HUESHUOS)
TAÑO
OJOTA
TEUTA
COMECHINGÓN
L. Concepción
S. José
S. Juan
Santiago
S. Corazón
Salinas Izozog
Ft. Albuquerque
Ft. Coimbra
S. Ignacio de Zamucos
Ft. Olimpo
Pao d'Assucar
S. J. Nepomuceno
Belén 1760
Guarepotí
ASUNCIÓN
Ypané
Paraguarí
Villarica
P. Gonzalez Mission
La Cangayé
S. Bernardo
Conc. del Bermejo
S. Fernando
Corrientes
Ytatí
Jesus
Trinidad
S. Borja
Garzas
S. Lucia
Goya
S. Jeronimo
Jes. Nazareno
S. Pedro y Pablo
Ynispin
Conc.
Ft. Soledad
S. Javier
Sta. Fé
Laguna de Ybera
Laguna de los Porongos
Salinas Grandes
Concepción
Matará 1700
Santiago del Estero
S. Miguel del Tucumán
Petacas = S. José
Esteco
Macapillo = N.S. del Pilar
Ft. Pitos 16TH C.
Valbuena = S. Juan Bautista
S. Est. Miraflores
Esteco
Ortega
Salta
S. J. Nep.
S. Ignacio de Ledesma (TOBA)
Esquina Grande
Guadalcazar
N. Sra. de las Angustias
Rosario de las Salinas
Tarija
Itau
S. Juan
Parapití
Masavi
Ymiry
Saypuri
Tapiula
Taquorembo
Piritio
Tomina
Laguna
Vallegrande
S. Cruz de la Sierra
Mizque
S. Rosa
Lagunas de los Xarayes
R. San Miguel
R. Paraguay
R. Cuyabá
Rio Tacuary
R. Mondego
Miranda
R. Blanco
Serra Cayapo
R. Apá or R. Corrientes
R. Aquidabán
R. Ypané
R. Jejuý
R. Tapiracuay
Rio Yabebiri
Rio Pilcomayo
Rio Bermejo
Rio Paraguay
Rio Paraná
Arroyo del Rey
Rio Corriente
R. Salado
R. Dulce (Saladillo)
R. Dorado
R. de Valle
San Francisco
R. Centa
R. Itiyuro
R. Piray
R. San Juan or R. Pilaya
Rio Pilcomayo
Rio Grande or Guapay
Rio Parapití
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MAP 4.—Tribes of the Gran Chaco: Locations at the first European contact.

The Parapití is the only river in the Chaco that belongs to the Amazon water system. It disappears into the marshes of the Izozog and emerges again on the other side under the name of Tunas River.

In the northeastern part of the Chaco, the only water course worth mentioning is the Otuquis River, which is dry during a large part of the year.

On the whole, the Chaco is a dry country (pl. 46) which would be hardly suitable for human settlement were it not that lagoons, water holes, cañadas, and madrejones are abundantly scattered throughout the area. These water holes may dry up suddenly, and the Indians who depended on them are then forced to migrate to more favorable surroundings. Scarcity of water rather than the hostility of the Indians has hampered for centuries the exploration of the Chaco.

The Chaco climate varies somewhat from east to west. Rainfall is heavier in the east (50 inches (1.3 m.) a year), starts earlier (October), and ends only in May. In the center and west, the dry season lasts about 6 months, and the precipitation is less abundant, especially in the central portion of the Chaco (25 inches (63 cm.) a year). In winter, from June to August, when the cold south wind blows, the temperature at night may fall several degrees below the freezing point. The highest temperatures in South America (46° C.) have been recorded in the Chaco, near Villamontes and the Río Salado.

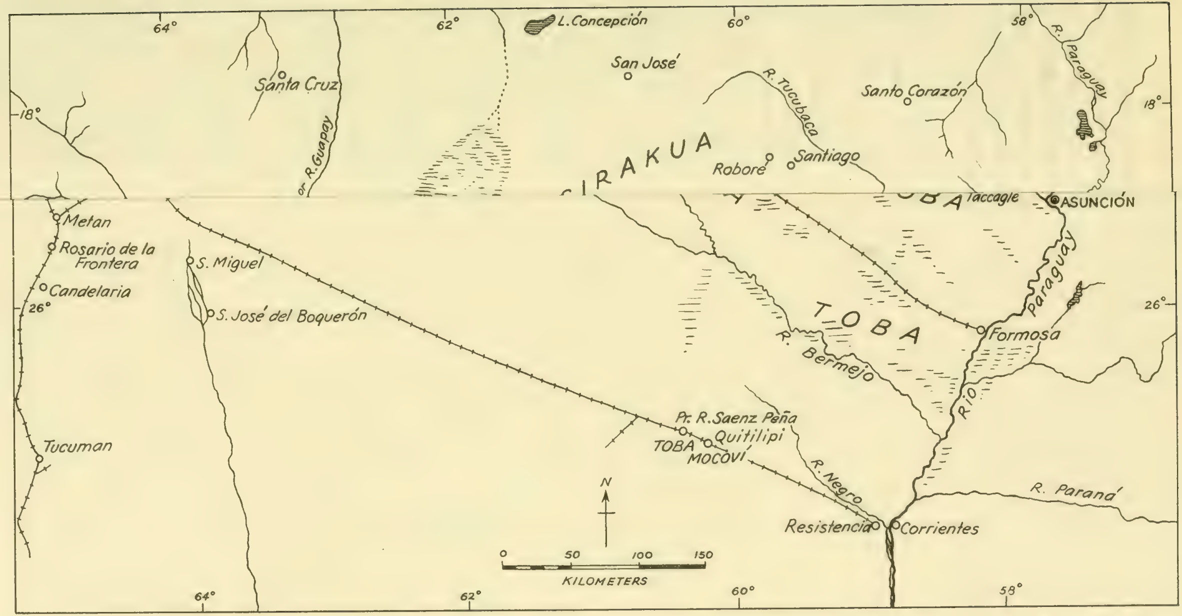
The flora and fauna of the Chaco are discussed under Subsistence Activities.

POST-CONTACT HISTORY

Exploration and conquest.—The dry forests and swamps of the Chaco, inhabited by wild and warlike Indians, had little to entice the Spanish conquistadors. This region, which even today is in some parts terra incognita, was, however, one of the first areas in the interior of South America to be explored by the Whites. The Chaco in itself was unimportant; its historical role was due to the fact that it was the gateway to the fabulous lands of the west from which the *Guaraní* received the silver and gold objects seen by the Spaniards from the mouth of the Río de la Plata to Paraguay. For almost half a century the history of the Río de la Plata consisted of a series of attempts to master the Chaco in order to reach the land of the "metal and of the white king." When, in 1548, the conquistadors under Domingo Martínez de Irala finally realized their dream, it was too late. The rich mountain lands of the west had fallen into the hands of Pizarro and his companions. However, the first man to cross the Chaco and set foot in the empire of the *Inca* was a Portuguese sailor, Alejo García, a shipwrecked member of the Solis armada. Sometime between 1521 and 1526 he joined a party of *Guaraní* who, like many other *Guaraní* groups, were moving westward to loot the border tribes of the *Inca* Empire. Alejo García crossed the northern Chaco (along lat. 19° or 20° S.) and reached the country of the *Chané* and of the *Caracara* (*Charcas*). Although he was murdered on the way back, the news of his exploit and of the wealthy country he had discovered had reached the Portuguese on the Atlantic coast. Rumors about the Peruvian gold carried by the *Guaraní* or the *Chané* provoked a gold rush that started with Sebastian Cabot, 1526, and ended with Domingo Martínez de Irala and Nufrio de Chavez.

The history of the Chaco in the 16th century cannot be separated from that of the conquest of the Río de la Plata. Asunción was founded in 1536 only as a convenient base for the exploration of the Chaco. The main events which marked that period were: The tragic expedition of Juan de Ayolas, 1537–39, who crossed the Chaco to the land of the *Chané*, but on his return was massacred near La Candelaria by the *Payaguá* Indians; the 26-day expedition of Domingo Martínez de Irala from San Sebastian, 8 leagues (24 miles) south of La Candelaria westward, 1540; the expedition of Alvar Nuñez Cabeza de Vaca against the *Mbayá Guaicurú* in 1542; the reconnoitering expedition of Domingo Martínez de Irala in 1542 to Puerto de los Reyes (lat. 17°48′ S., today Laguna Jaiba); the expedition of Alvar Nuñez Cabeza de Vaca, 1543–44, to the upper Paraguay River, and his vain attempts to cross the northern Chaco; the raid of Nufrio de Chavez into the territory of the *Mbayá*, 1545, and his journey up the Pilcomayo River, 1546; the march of Domingo Martínez de Irala, 1548–49, from Cerro San Fernando (Pão de Azucar, i. e., lat. 20° S.) across the territories of the *Naperú*, *Mbayá*, and *Chané* to the land of the *Tamacosi* on the Río Grande (Guapay River); and the "mala entrada" of 1553, a futile journey of 150 leagues (450 miles) from the Cerro San Fernando across the northern Chaco and the southern fringe of Chiquitos. After the founding of the first city, Santa Cruz de la Sierra, 1561, near San José de Chiquitos, communication was opened between the Paraguay River and the Andes, and between the La Plata Basin and the Amazonian water system. Deceived in their hopes of conquering Perú, the conquistadors of the Río de la Plata then turned their attention toward discovering the mythical land of the "Gran Mojos" and of the "Paititi." The Chaco was no longer the wall that concealed El Dorado and therefore lost its interest.

The success of the expeditions that crossed the northern Chaco, today a region hardly explored, was due mainly to the *Guaraní* guides and auxiliary troops. Numerous expeditions to the Andes had rendered the *Guaraní* familiar with the country, and they evinced great willingness to fight against the tribes that they found on their way. The Spaniards met stragglers of the *Guaraní* migration scattered between the Paraguay River and the first spurs of the Andes. Some villages



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Metan
Rosario de la Frontera
Candelaria
S. Miguel
S. José del Boquerón
TOBA
Formosa
Paraguay
R. Bermejo
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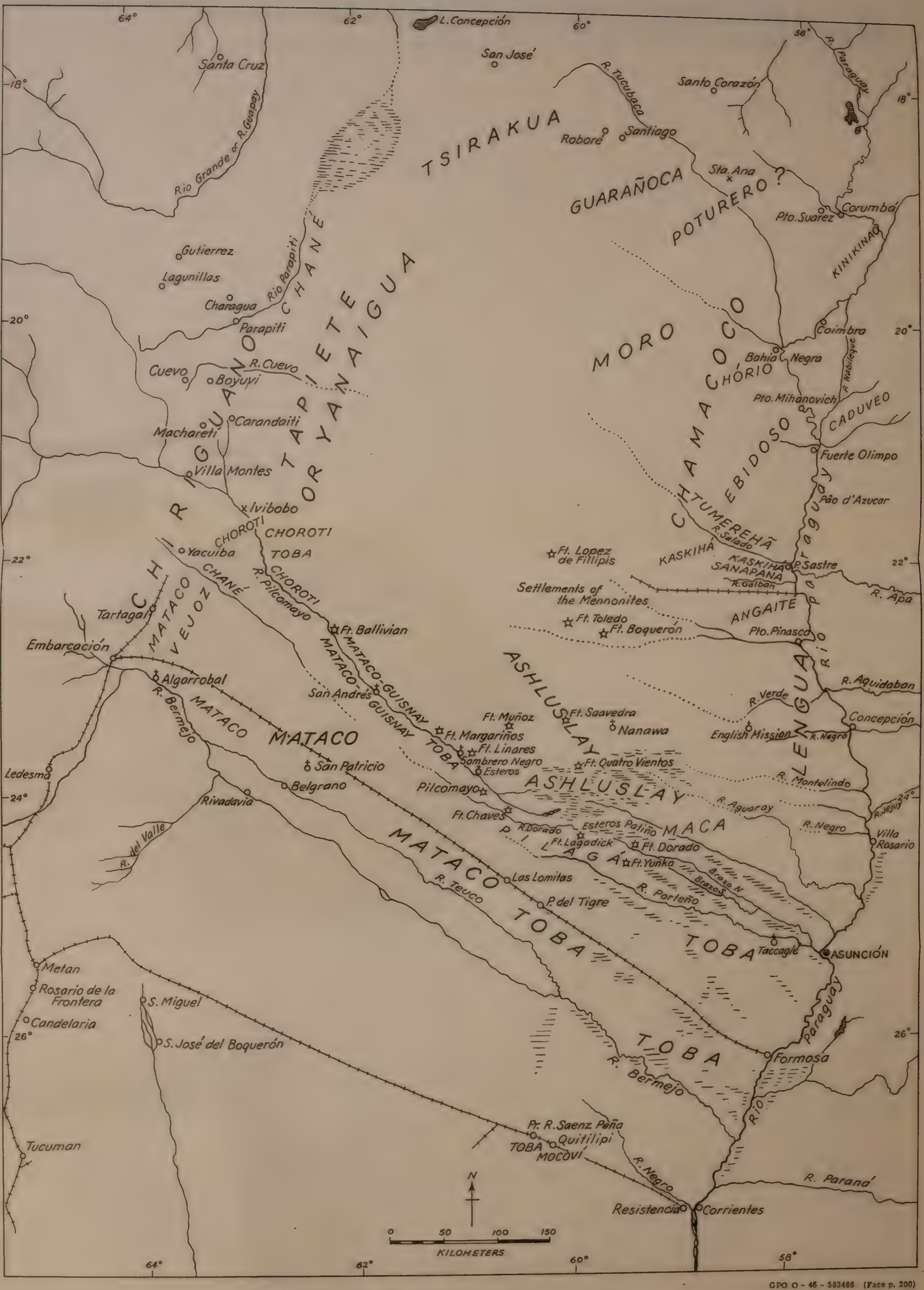
MAP 5.–Tribes of the Gran Chaco: Present day locations.


TSIRAKUA
GUARAÑOCA
POTURERO ?
MORO
CHAMACOCO
CHÓRIO
EBIDOSO
CADUVEO
KINIKINAO
TUMEREHÃ
KASKIHÁ
KASKIHA
SANAPANA
ANGAITE
LENGUA
ASHLUSLAY
MACA
PILAGÁ
TOBA
MATACO
MATACO-GUISNAY
CHOROTI
CHANÉ
TAPIETE
OR YANAIGUA
CHIRIGUANO
VEJOZ
MOCOVÍ
L. Concepción
San José
Santa Cruz
Rio Grande or R. Guapay
R. Tucubaca
Roboré
Santiago
Santo Corazón
Sta. Ana
Pto. Suarez
Corumbá
R. Paraguay
Coimbra
Bahía Negra
R. Nabileque
Pto. Mihanovich
Fuerte Olimpo
Pão d'Azucar
Paraguay
R. Salado
P. Sastre
R. Galban
R. Apa
Pto. Pinasco
Río
R. Aquidaban
Concepción
R. Verde
English Mission
R. Negro
R. Montelindo
R. Aguaray
R. Jejuy
Villa Rosario
Ft. Lopez de Fillipis
Settlements of the Mennonites
Ft. Toledo
Ft. Boquerón
Ft. Saavedra
Nanawa
Ft. Muñoz
Ft. Margariños
Ft. Linares
Sombrero Negro
Esteros
Ft. Quatro Vientos
Pilcomayo
Ft. Chaves
R. Dorado
Esteros Patiño
Ft. Lagadick
Ft. Dorado
Ft. Yunka
Brazo N
Brazo S
R. Porleño
Las Lomitas
P. del Tigre
Taccaglé
ASUNCIÓN
Gutierrez
Lagunillas
Charagua
Rio Parapiti
Parapiti
Cuevo
Boyuyi
R. Cuevo
Machareti
Carandaiti
Villa Montes
Ivibobo
Yacuiba
R. Pilcomayo
Ft. Ballivian
San Andrés
Tartagal
Embarcación
Algarrobal
R. Bermejo
San Patricio
Belgrano
Rivadavia
R. del Valle
Ledesma
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Metan
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MAP 5.—Tribes of the Gran Chaco: Present day locations.

of these *Guaraní*, such as those near Puerto de los Reyes (Laguna Jaiba), survived until the end of the 17th century.

By the end of the 16th century, Spanish settlements surrounded the Chaco area, and the Spaniards recognized that it would be advantageous, for economic and political reasons, to pacify the Indians and to establish a shorter route between Paraguay and Perú. Nevertheless, fear of this "green hell" and of its inhabitants prevented an extensive conquest. White penetration was accomplished slowly by the establishment of precarious military posts and a few towns, whose settlers either exterminated the Indians or reduced them to serfdom.

The eastern frontier of the Chaco remained almost unchanged for about three centuries. On the west, the Whites expanded more rapidly, but it is a mistake to regard the early cities of Santiago del Estero and of Esteco as advanced posts into the Chaco. They were located in the Chaco as a geographic entity, but their native population consisted of Indians, such as the *Tonocoté*, who were sedentary farmers and who culturally were related to or influenced by their neighbors of the Sierra, the *Diaguita*. On the other hand, Concepción, founded in 1585 on the Bermejo River in the very heart of the Chaco among the warlike *Frentones* or *Guaicurú* tribes, was for 50 years a military base and missionary center. But its destruction in 1632 eliminated for more than a century and a half the hope of establishing direct communication between Corrientes and Tucumán. Guadalcázar, founded in 1628 as a stepping stone for further advances into the Chaco, was likewise short-lived.

The subjugation of the Chaco was retarded also by those Indian tribes which, once in possession of the horse, took the offensive and held back the Spaniards. In the south the *Abipón* and *Mocoví* descended from the Bermejo River into the Pampa, and in the north the *Mbayá* wrested the fertile Province of Itatí east of the Paraguay River from the *Guaraní* and the Spaniards.

Missionization.—The spiritual conquest of the natives of the Chaco, undertaken simultaneously with military penetration, was largely the work of Jesuits. The Jesuits assumed their arduous task not only out of religious zeal, but, in some instances, to demonstrate to the civil authorities their usefulness in pacifying tribes that Spanish arms had been unable to subjugate. The Christianization of the Chaco Indians goes back to the second half of the 16th century, when the cities of Tucumán, Santiago del Estero, and Esteco were founded. Fathers Francisco Solano, Alonso de Bárzana, Francisco de Angulo, Hernando de Monroy, and Juan de Viana baptized countless Indians in the southern Chaco and even preached to the *Abipón* and *Mocoví* of the Bermejo Basin. One hundred years later the Jesuits gathered the most dreaded Indians into missions and temporarily checked their forays against the Whites. Shortly before their expulsion from Paraguay in 1767, the Jesuits had undertaken with some success the conversion of the *Mbayá*, the most dangerous of all Chaco tribes. The Jesuits of the Province of Chiquitos had gained a strong foothold in the northern Chaco and gathered a great many *Zamucoan* tribes and bands into missions. They had taken charge also of the *Lule* and *Vilela*, who were pressed between the Spaniards and their neighbors, the *Toba* and *Abipón*.

The expulsion of the Jesuits in 1767 delayed the pacification of the Chaco. The *Mbayá* resumed their warlike activities, and the *Zamuco* were lost again in the great deserts between the Paraguay and Parapití Rivers. The Franciscans settled in 1780 along the Bermejo River and replaced the Jesuits in the *Toba* and *Mataco* missions, but seemed to lack the energy and intelligent zeal which had distinguished their forerunners.

The Jesuits undoubtedly had some influence on the acculturation of the Chaco Indians, but it is not always easy to distinguish their contributions to the native cultures from those brought about by contact with colonists and military posts. The Jesuits encouraged agriculture and stock raising in order to make the Indians more sedentary. They acquainted them with new foods and many European arts and crafts. Thus, the Jesuits taught weaving to the *Mocoví* women, who in a few years produced a surplus of blankets which they could sell to the Whites (Baucke, 1870, pp. 446–50). It was probably in the missions that the Indians acquired the habit of drinking maté, a beverage of which they became extremely fond, but which they could secure only by trading with the Whites. *Mbayá* decorative art, still flourishing, has a faint rococo flavor that may be ascribed to their prolonged contact with the Jesuit missions and with the Spanish and Portuguese colonists. The missions unwittingly contributed to the rapid decrease of native tribes, for the large concentration of Indians in a single spot was often followed by terrible epidemics of smallpox. After the expulsion of the Jesuits, the *Abipón* and *Mocoví* ceased to play any historic role and soon disappeared. The unity and spirit of these two tribes had been broken.

Introduction of the horse.—The adoption of the horse by several tribes, especially those of the *Guaicurú* group, was the most important consequence of the contact of the Chaco Indians with the Spaniards, and completely revolutionized their economic, social, and political life. The horse had a special appeal for the warlike *Guaicurú*, who practiced little or no farming and who lived close to the ranches of the Pampa, where innumerable horses were to be found. The *Abipón* seem to have been the first Chaco Indians to turn equestrian. At the beginning of the 17th century, they stole their mounts from *Calchaquí* Indians established in the Chaco, who had rebelled against the Spaniards and settled north of Santa Fé. By 1651 other tribes of the Bermejo River also had obtained horses. About the same time the *Mbayá* horsemen began to make their forays into Paraguay.

Once mounted, the mobility and audacity of the Indians made them the scourge of the Spaniards, whom they could now fight on more nearly equal terms and strike far away from home without fear of retaliation. *Abipón*, *Mocoví*, *Toba*, and *Mbayá* horsemen looted Spanish farms and ranches, and even became a direct threat to Santa Fé, Corrientes, Asunción, Santiago del Estero, Tucumán, and Córdoba. They cut communications between Buenos Aires and Perú and greatly hampered colonization and trade in regions far beyond the Chaco frontier.

The tribes of the western and extreme northern parts of the Chaco, though acquainted with the horse, did not become nomadic herders and even today retain the seasonal economic rhythm of the pre-Colonial era. Lack of suitable pastures was probably an important obstacle to the widespread use of the horse, but other factors also may have hindered its adoption. For instance, the more sedentary *Mataco* farmers were less prone to use horses than the *Toba* and *Mocoví*, who always had led a roaming life. The tribes of the middle Pilcomayo River, who subsisted on fishing and were not in direct contact with the Whites, received their first horses in recent times. Of the non-*Guaicuruan* tribes, only the *Atalala*, *Paisan*, some *Macá*, and *Mascoi* bands became true horsemen during the 18th century. Nevertheless, horses were fairly numerous in the *Mataco* and *Vilela* villages of the middle Bermejo River. The *Paisan* traded theirs from the *Mocoví* of Santa Fé for spears (Muriel, 1918, p. 111).

Some of the outstanding changes brought about in native culture were the complete abandonment of agriculture by some equestrian groups and, among the *Mbayá* and to some extent among the *Abipón*, the formation of a large servile class composed of captives taken during the raids. The suzerainty of the *Mbayá* over the *Guaná* farmers, already established before the coming of the Spaniards, was strengthened after they adopted the horse. The pure-blooded *Mbayá*, ruling over their *Guaná* serfs and relieved from most drudgery by their slaves, constituted an aristocracy of horsemen and herders over sedentary agriculturists.

The 17th century to the present day.—During the 17th century, the Spaniards in Paraguay sent several expeditions against the *Payaguá* and the *Mbayá* to chastise them for their raids against the colonists. On the other side of the Chaco, the Governor of Tucumán, Angel de Peredo, organized a great drive, 1673, against the Indians of the upper Bermejo and Pilcomayo Rivers. Three columns entered the Chaco but retreated after taking a few prisoners and killing some Indians. Of far greater importance to the history of the Chaco was the campaign of another governor of Tucumán, Ésteban Urizar y Arespacochaga, 1710, which resulted in the subjugation of many tribes, mainly *Lule-Vilela* of the Bermejo Basin, and led to the pacification of other groups. In 1759 the governor of Tucumán, Joaquín Espinosa y Davalos, advanced into the Chaco in order to meet another expedition sent from Corrientes; he followed the course of the Bermejo River but did not reach its mouth. In 1764 Miguel Arrascaeta reached Lacangayé but was forced by the Indians to retreat. The Matorras expedition in 1774 along the Bermejo River ended somewhat below Lacangayé. D. Francisco Gabino Arias founded in 1780 the mission of Nuestra Señora de los Dolores de Lacangayé for the *Mocoví* and that of San Bernardo for the *Toba*. The following year Arias, together with Father Francisco Morillo, descended the Bermejo River from Lacangayé to the Paraná River, thus completing the exploration of its course.

The history of the central Chaco during the 19th century is marked by the slow but systematic advance of the Argentine Army and colonists from the central Chaco toward the Pilcomayo River. North of the Pilcomayo, White penetration was slower and never extended far beyond the banks of the Paraguay River in the east nor beyond the foothills of the Andes and the chain of the Franciscan missions in the west.

In Argentina and Bolivia the colonization of the Chaco was based on cattle raising. The character of this economy led to many conflicts with the Indians who stole cattle or resented the encroachments on their fields. In the Paraguayan Chaco, the penetration of the Whites was motivated by the exploitation of the quebracho forests for tanin. The industrialists made great efforts to secure the cooperation of the Indians as lumberjacks. No major conflicts have marked the establishment of the obrajes (lumber camps), which, however, brought abrupt cultural disintegration of the Indians, who live at Puerto Pinasco, Puerto Casado, Puerto Sastre, and elsewhere.

In the 20th century, Bolivia's hope of finding an outlet to the sea across the Chaco plains resulted in the establishment of a line of small forts that was continually pushed eastward. The Paraguayans simultaneously advanced westward to guarantee their rights in the contested area. During the 1932–35 war, the presence of two contending armies in the Chaco brought great loss of life and property to the Indians.

Protestant missions of the South American Evangelical Society have extended their protection since 1887 to the *Lengua*, and in more recent years to several *Mataco* and *Toba* groups. In a short time they have obtained remarkable results and have helped the Indians in their harsh struggle for survival. Several thousand *Ashluslay* Indians are under the care of or in touch with the German missionaries of the Order of the Oblates of Mary Immaculate (San José de Esteros, Laguna Escalante, Misión Huachalla, and Lopez de Filippis). Italian Salesians also have been active in the Paraguayan Chaco since 1920. Many *Toba* of the lower Pilcomayo are concentrated in the Franciscan mission of San Francisco Solano at Taccagale.

A great many Indians of the Argentine Chaco have found refuge in "colonias" established by the Comisión Honoraria de Reducciones de Indios. The most important of these "colonias" or "reducciones" are: Napalpí, near Quetilipí in the Gobernación del Chaco, which has more than 2,500 Indians, including *Mocoví* and a few *Vilela;* and the "colonia" Bartolomé de las Casas, near Commandante Fontana, in Formosa, which was formed with 1,500 *Toba* and *Pilagá.* In 1935, two new "colonias," Francisco Javier Muñiz and Florentino Ameghino, were created in the Territory of Formosa for the *Pilagá.*

In winter most of the Indians of the Argentine Chaco seek work on the sugarcane plantations of Jujuy and Salta. These varied contacts with "civilization" are destroying the aboriginal cultures, and the native population is decreasing rapidly.

The Mennonite colonies of the Paraguayan Chaco have always maintained friendly relations with the Indians, mainly with the *Ashluslay.*

SOURCES

Chaco Indians—the *Mepene* (*Abipón?*) and the *Agaz* (*Payaguá*)—are first mentioned in Luis Ramírez's (Medina, 1908 a, 1:453) account of Sebastian Cabot's expedition up the Paraná River in 1527. But our most ancient authorities on the ethnography of Chaco natives are the German adventurer, Ulrich Schmidel (1903), who served as a mercenary under Pedro de Mendoza, Irala, and other conquistadors, and Pedro Hernández (1852), the secretary of the Adelantado, Alvar Nuñez Cabeza de Vaca. Schmidel lists, in a complicated German spelling, the names of a great many Indian tribes, some of which survived until the 18th century and even to the present. He also makes brief remarks about their appearance, their diet, and their ways of fighting. To Pedro Fernández we owe a short but fairly accurate description of the ancient *Guaicurú* (*Mbayá*) and almost the only existing data on the cultures of the upper Paraguay River, which disappeared soon after the Conquest.

Most of the official documents concerning the discovery of the Paraguay Basin contain references to Chaco tribes but tell us little if anything about their culture. The "Historia Argentina de las Provincias del Río de la Plata," by Rui Díaz de Guzmán (1914), and the epic poem "La Argentina," by Barco Centenera (1836), add practically nothing to our knowledge of the early ethnography of the region. The "Relaciones geográficas de Indias" (1881–97), published by Marcos Jiménez de la Espada, have often been utilized to determine the position of the tribes of the western and central Chaco at the time of the discovery of the ancient Province of Tucumán.

The "Cartas anuas de la Provincia del Paraguay," written by Jesuit missionaries and recently reprinted in Buenos Aires (1927–29), are a mine of information on the history, ethnic geography, and, in some measure, on the customs of the Chaco Indians. They cover the period from 1609 to 1637 and have been utilized by Nicolás del Techo in his "Historia Provinciae Paraquariae" (1673), which still is the fundamental source on Chaco ethnography in the 17th century. Other Jesuit authors, such as Lozano and Charlevoix, also have based their documentation on the field reports of the Jesuit missionaries.

The 18th century is the golden age of ethnological literature on the Chaco. During the first 50 years, the Jesuits took a firm hold in the Chaco and became familiar with its tribes. The triumphs and, subsequently, the expulsion of the Order from Paraguay provoked a general interest in everything pertaining to the region. To satisfy the public's curiosity, the Jesuits drew on their vast experience and published a great many works full of new and interesting details on the Indians. One of the masterpieces of the Jesuit period is Pedro Lozano's monumental "Descripción chorográfica del Gran Chaco Gualamba," published at Córdoba, Spain, in 1736 and reprinted in Tucumán in 1941. Lozano's "Historia de la conquista del Paraguay, Río de la Plata y Tucumán" (1873–74) and Francois Xavier Charlevoix's "Histoire du Paraguay" (1757) are essential sources on the history of the Chaco. Father Muriel (1918) covers the events from 1747 to 1767.

One of the most famous monographs ever written on any South American tribe is Martin Dobrizhoffer's "Historia de Abiponibus, equestri, bellicosaque Paraquariae natione," Vienna, 1784, which was translated into German and English. In this book the author describes the life and customs of the *Abipón*, a *Guaicuruan* tribe, among whom he lived from 1750 to 1762. Less known but almost as rich in detail are the memoirs of another German Jesuit, Florian Baucke (Paucke), but up to the present they have appeared only in abridged form (Kobler, "Pater Florian Baucke, Ein Jesuit in Paraguay" [1748–1766], Regensburg, 1870). A Spanish version of the whole manuscript has been prepared in Argentina (Florian Paucke, "Hacia allá y para acá," Tucumán, 1942–43). The value of Baucke's description is enhanced by his own drawings, which represent scenes of *Mocoví* life (Baucke, 1935).

"El Paraguay Católico," by the Jesuit Father José Sánchez Labrador, which was published only in 1910, must be placed on the same scientific level as Dobrizhoffer's masterpiece. The chapters dedicated to the *Mbayá*, among whom the author lived from 1760 to 1767, constitute one of the best and most truthful accounts of any South American tribe.

Good but far too brief monographs, also written by Jesuit missionaries, on southern Chaco groups complete the general picture of that region in the 18th century. To this latter group of documents belongs Father Joaquín Camaño y Bazán's description (1931) of the *Lule-Vilela* and other groups of the Pilcomayo and Bermejo Rivers. Some of these notes were published in recent years by Father G. Fúrlong (1938 b and c, 1939, 1941). The Jesuit Father José Jolis ("Saggio sulla storia naturale della Provincia del Gran Chaco," Faenza, 1789), composed a learned treatise on the geography and natural history of the Chaco which abounds in important details about the Indians. His map of the Chaco indicating the locations of native tribes is justly famous.

José Guevara's "Historia del Paraguay" (1908–10) has saved for posterity a few *Mocoví* myths. Hervás' classification of Chaco languages (1800–1805) is based on Jesuit documents. Many of the data presented by Félix de Azara (1809 and 1904) come from the same source, but this famous naturalist and geographer, who was always hostile to the Indians, is not a reliable authority, though he still enjoys considerable prestige among scholars. The diary of Juan Francisco Aguirre, another Spanish officer who visited Paraguay at the beginning of the 19th century, supplements Azara's information, but his main contribution to the ethnography of the Chaco consists of word lists which have thrown some light on the linguistic classification and nomenclature of that area, and of an excellent description of the *Payaguá*. Rodrigues do Prado (1839) and Ricardo Franco de Almeida Serra (1845), both Portuguese officers on Chaco outposts, have left us valuable reports on the *Mbayá* at the beginning of the 19th century. Several chapters of the posthumous book by the Swiss naturalist, J. R. Rengger (1835), deal with the Chaco Indians, especially the *Payaguá*, whom the author knew at first hand.

Several memoirs of Spanish officers who at the end of the 18th century explored the lower course of the Bermejo River allow us to locate accurately the *Mataco*, *Toba*, and *Vilela* settlements of that region, but provide us with scant information on their ethnography. Most of these documents have been published by de Angelis in his well-known collection.

During most of the 19th century, the ethnography of the Chaco suffered an eclipse, and students must content themselves with scattered references and short descriptions in travelers' diaries. Even the famous Alcide d'Orbigny (1835–47) and Castelnau (1850–59) offer little new on the region. The long report on the Franciscan missions in Bolivia written by José Cardus (1886) is especially important for the brief data it contains on the little-known tribes of the northern Chaco.

New impetus was given to field research in the Chaco by the Italian painter and explorer, Guido Boggiani, who rediscovered the *Chamacoco* and studied the modern *Mbayá* (*Caduveo*) during the last decade of the 19th century. His vocabularies, monographs, and especially his "Guaicurú" (1898–99) and his "Compendio de etnografía paraguaya" (1900 b) contributed much to the clarification of Chaco ethnography. The various "essays" of another Italian traveler of the same period, Giovanni Pelleschi (1881), are full of worth-while observations on the *Mataco*. Excellent material on several tribes has been collected by Domenico del Campana (1902 a and b, 1903, 1913), who lived for many years in the Chaco. An article by Seymour Hawtrey (1901) on the *Lengua* is a much quoted source on these Indians.

By far the best monograph on a single Chaco tribe is Barbrooke Grubb's "An Unknown People in an Unknown Land" (1913). This work, though superficial in many respects, is particularly useful for the light it throws on Indian psychology. Strangely enough, there is no modern detailed study of the total culture of a single Chaco tribe. On the other hand, several good sources may be consulted on the various aspects of culture, though some of them were intended to be a complete survey of a tribe's ethnography.

Our best contemporary authorities on techniques, material apparatus, and economy are Nordenskiöld (1912, 1919), Palavecino (1933 a), Rosen (1924), and Max Schmidt (1903, 1937 a and b); on religion and mythology, Baldus (1931 a), Campana (1903, 1913), Lehmann-Nitsche (1923 b and c, 1924–25 a, b, c, d, and e), Karsten (1913, 1923, 1932), Métraux (1935, 1937, 1939, 1941), and Palavecino (1940). Data on social organization are difficult to obtain in modern literature and do not compare with those which can be gleaned from Dobrizhoffer or Sánchez Labrador. On this particular subject, Baldus (1931 a, 1937 a, 1939), Hay (1928), and Métraux (1937) may be consulted.

Brinton (1898), Lafone-Quevedo (1893, 1894, 1895 a and b, 1896 a, b, and c, 1897 b, 1899) and Koch-Grünberg (1902 a, 1903 a) have laid the basis of the present linguistic grouping of Chaco tribes. The missionary R. Hunt (1913, 1915, 1937, 1940), has composed the most satisfactory grammers and vocabularies of modern Chaco languages. Large collections of *Toba* and *Pilagá* texts were made by Jules Henry and A. Métraux, but have not been published yet. Measurements of Chaco Indians have been taken by Lehmann-Nitsche (1904, 1908 b). Kersten (1905) is the author of a well-documented history of the Chaco tribes during the 17th and 18th centuries. Father G. Fúrlong (1938 b and c, 1939, 1941) has undertaken the task of reconstructing the life of the ancient Jesuit missions in the Argentine Chaco. Enrique de Gandía (1929) has written a general history of the discovery and conquest of the Chaco by the Spaniards. To Jules Henry (1940) we owe two psychological essays on the *Pilagá.*

ARCHEOLOGY OF THE CHACO

Archeologically, the Chaco is still a terra incognita. Several important finds have been made in regions which, though loosely considered parts of the Chaco geographical area, cannot be included within it from a cultural or an historical point of view.

Émile and Duncan Wagner have attached the label "Civilization of the Chaco santiagueño" to the painted pottery and other remains which they have collected in the Province of Santiago (Argentina). Judged from its ceramics, the "culture of Santiago del Estero" is but an offshoot of the *Diaguita* civilization and has little or nothing in common with that of the seminomadic Chaco tribes.

There is no resemblance between modern Chaco ware and the pottery discovered by Nordenskiöld (1902–03) and Boman (1908, 2:833–54) in the valley of the San Francisco and in the Sierra Santa Bárbara on the threshold of the Chaco. On the other hand, the ceramics of eastern Jujuy show many analogies with urns and vases unearthed farther to the west in the plains of Tucumán and Salta, where once flourished a culture best represented by the finds of La Candelaria in the Province of Salta. (On this culture, see Handbook, vol. 2, pp. 661–672.) The carriers of the La Candelaria civilization were undoubtedly the *Tonocoté*, who have been identified, without reason, with the Chaco *Lule.* The ceramics from former *Tonocoté* territory are distinct from that of the *Diaguita* area but typologically belong to the Andean sphere.

Boman's hypothesis (1908, 1:255–79) that the funeral urns for adults found at El Carmen, Province of Salta, were evidence of an early *Guaraní* invasion into the northwest of the Argentine has long been discarded. The interment of adults in urns is also a characteristic feature of the La Candelaria culture.

Only insignificant archeological material has come from the Chaco proper. Grubb (1913, p. 73) alludes to potsherds "bearing scorings, as if made by the pressure of the thumb," which could be found now and then in the territory of the *Lengua.* A large jar, 4 feet (1.25 m.) high, was unearthed at the *Lengua* mission of Makthlawaiya (Pride, 1926). Both the sherds and the jar appear to be of *Guaraní* origin—a confirmation of early statements about sporadic *Guaraní* infiltrations into the Chaco.

Márquez Miranda (1942) has described in great detail some potsherds from Las Lomitas (Territory of Formosa, Argentina) which, though discovered deep in the earth, do not differ from modern Chaco pottery. Even fingernail impressions, which occur on one fragment, cannot be considered a feature unknown to modern *Mataco* who live in the same region.

Boggiani (1900 b, p. 90) mentions important shell mounds at Puerto 14 de Mayo and at several other points along the upper Paraguay River. These mounds contained potsherds with a decoration similar to that of modern *Mbayá-Caduveo.* Vellard (1934, p. 45) reports that funeral urns have been found in great quantity in a cemetery near Puerto Guaraní.

CULTURAL INFLUENCES ON THE CHACO AREA

Culturally as well as ecologically, the Chaco is a transitional zone between the tropical plains of the Amazon Basin and the barren pampas of the Argentine. Along its western border it was widely open to influences from the Andean world, and in the east it abutted on a subtropical region inhabited by *Guaraní* tribes, both numerous and warlike.

Cultural streams from all these quarters converged in the Chaco and mingled to produce a new type of civilization. The influences of the Andean people, which are the most important and easily discernible, will be discussed first.

The 16th-century conquistadors looted silver ornaments from the *Guaicurú*, and their frequent allusions to gold, silver, and copper objects in Paraguay leave no doubt as to the existence of aboriginal trade routes across the Chaco forests. Moreover, several passages in old documents refer to active commercial relations between the Indians of the mountains and their neighbors of the plains. The Indians of the Calchaquí Valley organized peaceful expeditions to the Chaco to get wood for their bow staves. Chaco Indians in turn came to the border villages of the *Inca* Empire to barter deer and wildcat skins and rhea and egret feathers. It also is likely that Chaco bands worked for the *Tonocoté* and *Ocloya* farmers just as they now come to the sugar factories of Salta and Jujuy. Even today the *Tapieté* hire themselves to the *Chiriguano* in return for supplies of maize.

These frequent contacts contributed to the diffusion of the following Andean culture traits listed by Nordenskiöld: Spades, knuckle dusters, clubs with outstanding heads, slings, wooden knives, toothed wooden scrapers, feather fire fans, wooden bowls, wooden spoons, ponchos, shirts, woven girdles, sandals, netted hoods, spangles of shell beads, woven brow bands, wooden combs, earthen vessels carried by a string, games of chance, the tsuka game, drums with skin heads, kelim technique with open slits, tie-dyeing, long wooden whistles, eyed needles, handles on earthen vessels, lids on calabashes, pyrograving, sewing of cracked calabashes, and knitting technique.

The Andean origin of several of Nordenskiöld's traits is very doubtful. For instance, nothing indicates that the so-called knuckle dusters of the Calchaquí region were used like the leather rings of belligerent Chaco housewives. Chaco clubs cannot be compared to the composite clubs of the *Inca.* The Chaco caraguata shirt is typologically and technically different from the Andean camiseta. Calabashes with lids or with sewed cracks are so widespread in South America that they cannot be assigned to Peruvian influence. It seems only natural that a people without basketry should fan their fires with feathers. The poncho is probably post-Columbian in Perú, and in the Chaco is mentioned for the first time in the 18th century as a garment borrowed from the Creoles. Wooden whistles both of the long and the round types may have originated in the Andes but have never been found there.

By limiting himself to such atomistic trait lists, Nordenskiöld neglected to stress more decisive proofs of Peruvian influence. That knowledge of agriculture probably came from the Andean region can be inferred from the fact that men rather than women till the soil and that they use the shovel rather than the digging stick. The patterns on Chaco textiles are clearly related to those of the Andes. The decoration on *Mbayá-Caduveo* pottery presents obvious analogies with Peruvian motifs, even perhaps with the early art of Chavín. Chaco mythology has several themes in common with *Quechua* and *Aymara* folklore. The theory which assigns disease to soul-loss is perhaps characteristic of western South America,[1] and it never has succeeded in eliminating the more ancient Chaco belief that the magic intrusion of foreign substances in the body causes sickness.

The role of the *Arawakan Chané* (*Guaná*) in spreading Andean culture must have been considerable. In the west they formed a buffer between the Chaco tribes and the people of the foothills of the Andes. All the objects which originated in the Andes and which were adopted by Chaco Indians occur also among the *Chané.* Even the *Chiriguano*, who replaced them in the 16th century, exercised no little influence on their immediate neighbors, the *Tapieté*, *Chorotí*, and *Toba.*

Along their northern and eastern borders the Chaco tribes were in direct contact with representatives of the two main tropical linguistic groups, the *Arawak* and the *Guaraní.* The *Guaná* (or *Chané*), who occupied the Chaco from lat. 22° S., belonged to the same group as the western *Chané*, but their culture had been less modified by influences from the Andean area. Techniques which can be specifically assigned to *Arawak* or *Guaraní* influences are surprisingly few. They include: The loom, the hammock (here used as a cradle), some types of nets, the feather ornaments of the *Mbayá* and *Chamacoco*, the use of urucú, basketry among the *Mbayá*, the baby sling, and the shuttlecock of maize leaves. The cultivation of sweet manioc may also be the result of contact with the *Guaraní* or the *Arawak*. Chaco arrows are typologically identical to those used throughout tropical America, but the feathering—a subvariety of the cemented type—is distinctive for the area. Chaco carrying nets are made of the same material and with the same techniques as those of the *Botocudo*, *Purí-Coroado*, and *Camacan*, but the net industry in the latter tribes is one of the features which sets them apart within the tropical forest culture area.

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[1] The soul-loss theory seems more widely spread in tropical South America than our sources indicate.

The religious beliefs and shamanistic practices of the Chaco Indians do not differ markedly from those of the Amazonian basin. The initiation rites of the *Chamacoco* must be linked with those of the *Ona* and of the *Yahgan*, but have a great many features in common with the ceremonies of several tropical tribes, in particular those of their *Guaná* neighbors. It will probably remain undetermined whether the ceremonial terrorization of women by mummers is a late acquisition from some tropical tribes (i. e., *Arawak*) or the survival of ancient rites once known to the Chaco and Fuegian tribes. Gusinde favors the former hypothesis.

The impact of White civilization during the past 300 years has also modified Chaco culture in many respects. The deep changes brought about by the horse have been mentioned. Most of the tribes have received sheep, goats, cattle, and dogs. Wealth in sheep favored the development of weaving, which became one of the main industries. Woolen garments replaced the former skin clothing. The Chaco Indians have received the following traits from the Whites: Tinder boxes for flint and steel, clarinets of cow horn, knitting with needles, certain folk-tale motifs, decorative patterns (on *Caduveo* pottery). They also have adopted new plants, such as caña de Castilla (*Arundo donax*), watermelons, sugarcane, and others. Nordenskiöld (1919, p. 232) makes an interesting observation about White influence:

> The positive influence of White culture is, generally speaking, greater in those parts where the Indians live far away from the Whites, than in those where they live in direct dependence under the White man. Thus the Ashluslay, who have preserved their independence, carry on ranching on a large scale, while some Mataco tribes, almost entirely dependent, have no cattle at all. Up to quite recent times, the Ashluslay were in the happy position of being able to derive advantages from the Whites without falling into irretrievable poverty.

The Chaco Indians share several culture traits with the tribes of Patagonia. According to Nordenskiöld, these are: Skin mats, bowstrings of leather, bows without notches at the ends, cloaks of several skins sewn together, skin skirts, leather girdles, hairbrushes, bags made of ostrich (rhea) necks, bags made of the whole skin of a small animal, hockey, and twisting of skin thongs. We may add: moccasins, decorative pattern on skin cloaks, harpoons with barbed heads (*Mocoví*), and bolas (*Mocoví*, *Abipón*, *Lengua*).

However, it is rather by their general type of life that the Chaco Indians resemble the southern tribes, and the analogies with them grow as one goes from the northern Chaco to the south. It is, for instance, difficult to distinguish the *Mocoví* from the *Charrua*.

In some remote past before they came in touch with the people of the Andes or with the *Arawak* and *Guaraní* tribes to the north and east, the Chaco Indians were nomadic collectors, fishermen, and hunters. They dressed in painted skin cloaks and lived in flimsy communal houses. They had neither basketry nor weaving, but excelled in making netted bags. They were grouped in small bands formed by a few extended families; their religious practices consisted mainly of magic rites which aimed at expelling or controlling evil spirits. Their shamans derived their power from familiar spirits after a voluntary quest. They celebrated puberty rites for girls and in some, if not all the tribes, initiation ceremonies for boys.

Several of the parallels between the cultures of the North and South American Indians tend to cluster in the Chaco. According to Nordenskiöld (1931, pp. 77–94), these are: Pit dwellings (?), houses with porches (?), skin cloaks, skin skirts, fringed skin belts, leggings, moccasins, embroidery on skins, arrows fastened with fish glue (*Vilela*), arrow quivers (*Abipón*, *Mocoví*), hair brushes, scalping, smoke signaling, dancing with deer-hoof rattles, hockey game, ring-and-pin game, and monitor pipes. Thus of 35 parallels enumerated by Nordenskiöld, 17 occur in the Chaco. It must be stressed that most of these traits are very minor ones, and there is no need to attribute their existence to survivals. The Chaco use of skins for clothing has naturally brought about secondary features which are also found among North American tribes who wore skin garments. The small porch which the Indians sometimes build against the wind cannot be construed as a parallel to the entrances of the Eskimo snow huts. The arrow quiver of the *Mocoví* and *Abipón* is probably a local development, because if it were ancient it would have been more widespread throughout the Chaco. The same is true of the fish-glued arrows of the *Vilela*. The *Pilagá* and *Toba* moccasins are not true footgear, but are only an improvised protection for the feet when the Indians cross a thorny terrain or wade in the marshes. Not unlikely, they are a recent crude imitation of European shoes.

Analogies between Chaco mythology and North American folklore are, however, more striking than the few similarities in material culture. It is probable that, together with the Fuegian and Patagonian tribes, the Chaco Indians represent an ancient population who, until recently, have preserved several features of a very archaic culture, which in remote ages might have been common to primitive tribes of both North and South America.

LINGUISTIC AND TRIBAL DIVISIONS

THE GUAICURUAN LINGUISTIC FAMILY

The *Guaicuruan* was the most extensive linguistic family in the Chaco. Its dialects were spoken from Santa Fé in the Argentine to Corumbá in Brazil, and from the Paraná and Paraguay Rivers to the Andes. Before the Conquest, the bulk of the warlike tribes belonging to this family were concentrated between the Pilcomayo and Bermejo Rivers and along the Paraguay River beyond lat. 20° S. The *Guaicurú* expansion throughout the Chaco and into Paraguay took place during the 17th and 18th centuries and resulted partly from their acquisition of the horse.

The affinities between the various dialects of this family are very close, and were noticed by the Jesuits. In modern times Lafone-Quevedo (1893, 1896 c, 1896 d), Adam (1899), and Koch-Grünberg (1903 b) established their relationship on a scientific basis. The tribes whose inclusion in the family is beyond doubt are the *Abipón*, *Mocoví*, *Toba*, *Pilagá*, *Payaguá*, and *Mbayá*. The affiliation of the *Guachí* is doubtful. The only existing *Guachí* vocabulary was collected by Castelnau in 1850 and shows unmistakable relations with *Mbayá*, but it also has many differences which suggest that the *Guachí*, who are said to have spoken a language of their own, had recently adopted the tongue of the *Mbayá*, with whom they maintained friendly contacts and with whom they finally merged.

The relationship of the *Aguilot* and *Cocolot* languages to the *Guaicuruan* family is postulated on historical, not linguistic, evidence.

The only modern representatives of the *Guaicuruan* family are the *Toba*, *Pilagá*, a few *Caduveo*, and perhaps some *Mocoví*.

The name *Guaicurú* seems to have been applied by the *Guaraní* to the warlike and half nomadic Indians on the western side of the Paraguay River, most of whom in the 16th and 17th centuries belonged to the *Mbayá* tribe. *Guaicurú* and *Mbayá* may, therefore, be considered as synonyms, even though the former name may have been given to some Indians of the *Mascoian* or *Matacoan* families, e. g., the *Lengua*, *Macá*, and others. (See Boggiani, 1898–99.) There is no evidence to substantiate Azara's contention that there existed a separate *Guaicurú* tribe which became extinct at the end of the 18th century.

According to Spanish sources (Lozano, 1941, p. 62), the Indians known as *Guaicurú* were divided into three subgroups:

(1) The *Codollate* (*Codalodi, Taquiyiqui*), who were gathered into the short-lived mission of Santos Reyes Magos and later were destroyed by the eastern *Mbayá*, who absorbed their remnants (see Sánchez Labrador, 1910–17, 1:262); (2) the *Guaicurutí* (*Napipinyiquí, Napiyegi*), an unidentified western *Mbayá* group who were also absorbed by the eastern *Mbayá;* and (3) the *Guaicurú-guazú* (*Eyiguayeguí*), who were the *Mbayá* proper, because *Eyiguayeguí* ("the inhabitants of the palm groves") was the generic name for all *Mbayá* subtribes and bands both east and west of the Paraguay River.

The *Frentones* of the lower and middle Bermejo River, so named because of their shaved foreheads, can easily be identified with the historical *Toba* and *Abipón.*[2] The Jesuit missionaries Bárzana and Añasco, made the first, but unsuccessful, attempt to convert them in 1591. The term *Frentones* disappeared from the literature after the destruction of Concepción del Bermejo by these Indians in 1632.

Mbayá (*Guaicurú, Tajuanich, Guaiquilet, Indios Cavalheiros*).—The southernmost bands of the *Mbayá* were undoubtedly the *Guaicurú*, who lived across the Paraguay River from Asunción and who were defeated by Alvar Nuñez Cabeza de Vaca in 1542. The *Guaicurú* (*Codollate*) of the mission of Santos Reyes Magos were one of their bands. In the 16th century, the *Mbayá* extended along the western side of the Paraguay River from the mouth of the Pilcomayo River far beyond lat. 20° S.

History of the Mbayá.—On his journey across the Chaco, Domingo de Irala found the *Mbayá* 70 miles west of Cerro San Fernando (Pão de Azucar), beyond another tribe called *Naperú* (*Guaná?*). The *Mbayá* at first received the Spaniards in a friendly way, but soon turned against them. The Spaniards took revenge by slaughtering another *Mbayá* group which was completely innocent of the attack.

The hostilities between the *Mbayá* and the Spaniards of Paraguay started in 1653. About 1661, the *Mbayá* crossed the Paraguay River, attacked the Province of Itati and destroyed the mission of Santa María de Fé (lat. 20°5′ S.) After laying waste Xerez, most of the *Mbayá* returned to the Chaco, but some bands remained in the conquered region. In the following decades, the areas between the Jejuy River in the south and the Tacuary River and the Xarayes marshes in the north fell into their hands. From there, they constantly raided the towns and missions of Paraguay and, on several occasions, threatened Asunción. It was not until about 1744 that Rafael de la Moneda, Governor of Paraguay, was able to organize effective resistance against these Indians. However, in 1751 the *Mbayá* destroyed the town of Curuquatí, killing a large part of its population. The eastern and southern *Mbayá* made peace with the Spaniards in 1756 and renewed their treaty in 1774. Western *Mbayá* pushed also toward the north and assaulted the Christianized *Chiquito.* They continued their raids long after the expulsion of the Jesuits in 1767.

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[2] Even in recent years, the *Pilagá,* like their *Guaicuruan* ancestors, depilated the forehead.

In the beginning of the 18th century, some *Mbayá* bands allied themselves with the *Payaguá*. Changing from horsemen into boatmen and river pirates, they ambushed miners and colonists as they sailed from São Paulo to Matto Grosso on the Tacuary, Paraguay, and Cuyabá Rivers. On several occasions they attacked large expeditions and slaughtered several hundred persons. (For a detailed account of these assaults, see Rodrigues do Prado, 1839, pp. 41–44.)

The punitive expedition of Rodrigues de Carvalho in 1734 did not prevent the *Mbayá* from making the territory along the Cuyabá River dangerous for many more years. Their striking power declined after 1768, when their alliance with the *Payaguá* was broken, but they continued to raid the Portuguese; some of their war parties went as far as lat. 16°3′ S. on the Paraguay River and others reached the Iguatemí, a tributary of the Paraná River. In 1775, the *Mbayá* destroyed a few farms near Villa Maria (lat. 16°3′ S.).

Military posts were established both by Spaniards and by Portuguese at Fuerte Olimpo or Bourbon (1772), at San Carlos on the Apa River, at Nova Coimbra, and at Albuquerque. These kept the *Mbayá* at bay, though in 1778 the *Mbayá* slaughtered part of the garrison of Nova Coimbra. In less than a century they are said to have killed about 4,000 Portuguese.

Toward the end of the 18th century, several *Mbayá* groups, hard-pressed by the Spaniards, settled near Albuquerque in Portuguese territory. Those of the Mondego River put themselves under Portuguese protection at Miranda. In 1791 the *Mbayá* made formal peace with the Portuguese and thenceforth ceased their attacks, even helping them in their fights against the Spaniards.

At the beginning of the 19th century, many *Mbayá* moved to the region south of the heights of Albuquerque (Coimbra) because its prairies remained dry during the rainy season. There they found pastures for their horses, abundant game which was driven in by the flood, and, in the swamps, innumerable fish and caimans. They moved their camps according to the annual rise and recession of the flood.

For many years the *Mbayá* used the rivalry between the Portuguese and Spaniards to obtain favors from both. The Portuguese, and later the Brazilians, recognizing the value of their allegiance, won them over by generous gifts of weapons, tools, and food, and later established regular commercial relations with them. The *Mbayá* traded skins and pottery for manufactured goods, and their chiefs received honorary commissions in the Brazilian Army. At the beginning of the 19th century the *Mbayá* renewed their hostilities against the Paraguayans.[3] During the dictatorship of Francia (1814–40), they attacked the Department and city of San Salvador and even threatened Concepción. The dictator, Lopez, built a chain of forts along the Apa River to bar their inroads. The *Mbayá-Caduveo* fought with the Brazilians in the Paraguayan war and raided the region of the Apa River, destroying the town of San Salvador.

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[3] According to Rengger (1835, pp. 335–340), the *Mbayá* lived for a long time between the Aquidabán-mi and the Apa Rivers, maintaining good relations with the Paraguayans. But as a result of an outrage which they suffered at the hands of an officer of Fuerte Olimpo, they resumed their war against the Paraguayans and forced them to evacuate all the region north of the Aquidabán-mi River. They again made peace, and some groups settled with their *Guaná* vassals on the Cangata River and near Villa-Real. Shortly afterward, hostilities broke out once more and the new *Mbayá* settlements were destroyed. Francia then established outposts on the Aquidabán-mi River, but in 1818 the *Mbayá* forced the Paraguayans to evacuate Tevego, 40 leagues from Concepción. After this victory they suffered only reverses at the hands of the Paraguayans, who were now familiar with their tactics, and put strong garrisons in the forts of San Carlos and Olimpo and stopped their inroads.

Until recently, the *Mbayá* occasionally raided other Indian tribes to capture slaves. Some of their war parties went as far as the upper Paraná River region, where they kidnapped *Cainguá* and *Caingang;* other expeditions were directed against the *Chamacoco* in the Chaco. Today their last remnants in the region of the Nabileque River are being rapidly assimilated into the Neo-Brazilian population.

Christianization of the Mbayá.—In 1609 Fathers Vicente Grifi and Roque González de Santa Cruz settled among a *Mbayá* band that lived opposite Asunción, on the Guazutinga River, and were instrumental in creating friendly relations between the Indians and the Spaniards. The mission of Santos Reyes Magos, dedicated in 1615, throve under Fathers Pedro Romero and Antonio Moranta, but several smallpox epidemics caused its rapid decline until, in 1626, it disappeared.

The Jesuits, who had never given up the hope of Christianizing the *Mbayá*, endeavored in 1760 to convert those who had invaded Paraguay. In the same year Father José Sánchez Labrador founded the mission of Nuestra Señora de Belen, at the mouth of the Ypané River. Science is indebted to him for a very detailed account of his work among the *Mbayá*, with a full description of their culture. The mission was abandoned soon after the expulsion of the Jesuits.

Population of the Mbayá.—The *Mbayá* bands against which Alvar Nuñez Cabeza de Vaca fought were said to consist of 4,000 warriors. Schmidel put the *Mbayá* army at 20,000! He said that in one village the Spaniards slaughtered 3,000 *Mbayá.* These figures are, of course, grossly exaggerated. A Jesuit document of 1612 puts the *Guaicurú* who lived opposite Asunción at 1,200 (Gandía, 1929, p. 146). Sánchez Labrador (1910–17, 2:31), who had first-hand knowledge of all the *Mbayá* bands, estimated their total number at 7,000 to 8,000. Azara (1904, p. 376) sets the number of "pure" *Mbayá* at about 2,000. In 1803, 2,000 Indians in the region of Coimbra and Miranda were reckoned as "*Guaicurú*," but 600 of them were *Guaná* and 400 were *Chamacoco* slaves. In the middle of the 19th century there were 3,600 Indians near Albuquerque in three villages, of which only one was inhabited by *Mbayá* (the *Guatiadeo* band). There were probably 500 other *Mbayá* near Miranda.

Subdivisions of the Mbayá.—The *Mbayá* were split into subtribes, which in turn were subdivided into bands, each with its own chief. These subgroups shifted during the 18th and 19th centuries. Their names generally were derived from some salient feature of their habitat, e. g., the *Mbayá* who settled in a region where the rhea abounded were named the People of the Rhea Country (*Apacachodegodegí*), the *Guetiadegodí* were the People of the Mountains, and the *Lichagotegodí* were the People of the Red Earth.

In the middle of the 18th century, the *Mbayá* bands extended in the basin of the Paraguay River from the Jejuy River (lat. 24° S.) to lat. 20° S. on the east side, and from lat. 21° S. to lat. 18° S. on the west side. The *Mbayá* subtribes still inhabiting the Chaco around 1767 were the *Cadiguegodí* and the *Guetiadegodí.*

The *Cadiguegodí* (*Catiguebo, Catibebo, Cadiguelguo*) are represented by the *Caduveo* of the Nabileque River, the only *Mbayá* group still in existence. In the middle of the 18th century, the *Cadiguegodí* were split into two large bands, having one name but two chiefs. About 1800 two *Caduveo* bands, with a total of 800 to 1,000 men, still lived in the Chaco near Fuerte Olimpo (lat. 21°5′ S.). Two other bands had migrated to the east side of the Paraguay River, one (500 people) living between the Apa and Ypané Rivers, and the other (300 people) near the range of the Nogona and Nebatena hills (lat. 21° S.). A few years later, the two *Caduveo* bands of Fuerte Olimpo, which numbered 300 and 380 respectively, settled near Coimbra in the Matto Grosso.

During the 19th century, the *Caduveo* ranged between the Rio Branco and the Miranda River, but the local ranchers seized part of their territory and made several attempts to exterminate them. At the beginning of the 20th century, the *Caduveo* were granted full possession of an area bounded on the north by the Nabileque River, on the west by the Paraguay River, on the south by the Aquidauana River, and on the east by the Serra Bodoquena and by the Niutaque River, a tributary of the Nabileque River. In 1937 the last *Caduveo*, totaling about 150, were divided among three settlements, the most important of which is Nalique. They are gradually being assimilated into the Brazilian rural population.

In the 18th century, the *Guetiadegodí* (*Gueteadeguo, Guatiadeo, Uatadeo, Ouaitiadeho, Ua-teo-te-uo, Oleo*), or "Bush Dwellers," were the northernmost *Mbayá* subgroup in the Chaco. Their territory was somewhat to the east of the *Chiquito* mission of Sagrado Corazon, on the Mandiy River. They often molested the *Chiquito* converts, who defeated them in 1763 and took a great many prisoners to the missions. In 1766 a *Guetiadegodí* band seceded to form an independent band under their former chief's brother. Aguirre (1911, p. 312) places them in 1793 at lat. 20°30′ S., east of the Paraguay River. They numbered about 500, and were then living on the banks of the Paraguay River, having abandoned their equestrian existence to become boatmen and fishermen. In the middle of the 19th century, their remaining groups had settled as farmers near Albuquerque.

The *Apacachodegodegí* (*Apacachodeguo, Apacatchudeho, Pacajudeus, Apacatsche-e-tuo*) roamed from the Jejuy River to the Apa River, but generally camped either near the Aquidabán-mi River or the Apa River. Until 1760 they frequently returned to their former habitat in the Chaco. These Indians were also called *Mbayá-mirim* (*Small Mbayá*) to distinguish them from the *Mbayá-guazú* (*Large Mbayá*) of the Chaco, and *Belenistas* because the mission of Nuestra Señora de Belen was founded among them. In 1793 they numbered about 600, and consisted of 7 small bands under a supreme chief. Today they have entirely disappeared.

The *Lichagotegodí* (*Ichagoteguo, Xaguetéo, Chagoteo*), or "People of the Red Earth," were concentrated in the region of the lower Apa River (lat. 22° or 21°30′ S.) somewhat west of the *Apacachodegodegí* and south of the Pão de Azucar. When they were missionized between 1769 and 1774, they numbered about 400.

The *Eyibogodegí* (*Echigueguo, Tchiguebo, Edjého, Ejueo, Enacagá*), or the "Hidden Ones," had one of their main camps near the Rio Branco, northeast of Pão de Azucar. This group, the largest *Mbayá* subtribe, consisted of three bands. In the middle of the 19th century, they were established near Albuquerque.

The *Gotocogegodegí* (*Guocotegodi, Ocotegueguo, Cotogudeo, Cotogeho, Cutugueo, Venteguebo*), or "Those of the Arrows Region," were a small group east of the *Eyibogodegí* in the hills at the headwaters of the Rio Branco. In 1793, they totalled about 200.

The *Beutuebo* (between lat. 21° and 20°40′ S.) mentioned by Azara (1809, 2:104) are the same as the *Beauquiechos* of Castelnau (1850–59, 2:479) who had lived near the Paraguayan border and later migrated to Miranda.

Abipón (*Mepene, Ecusgina, Callagaic, Quiabanaité, Frentones*).—Azara (1809, 2:164) and Kersten (1905, p. 32) identify the *Mepene* (*Mapenuss, Mapeni, Mepone*), a tribe of river pirates described by Schmidel (1903, p. 164), with the historical *Abipón*, whose name appears in the literature at the beginning of the 17th century. The *Mepene* lived somewhat to the south of the mouth of the Bermejo River in a region which, in the 17th and 18th centuries, was occupied by the *Abipón.* At that time the *Abipón* were not concerned with navigation, and nothing but a vague analogy in their respective names indicates a possible relationship between these two tribes. However, the name of one of the three *Abipón* subgroups, the *Yaaukanigá* (Water People), suggests that they may once have been canoe Indians and therefore identical with the *Mepene.* The *Yaaukanigá* were not originally an *Abipón* subtribe and even spoke a different language. It was only in the 17th century, after they had been defeated by the Spaniards, that the *Yaaukanigá* attached themselves to the *Abipón* and adopted their language.

The name *Callagaic* or *Callagá*, given to the *Abipón* by the *Toba* and *Mocoví*, had no connection with the name *Gulgaissen*, which designated a tribe more to the south.

History of the Abipón.—The original habitat of the *Abipón* was along the northern banks of the lower Bermejo River. Their expansion toward the south began in the 17th century after they had acquired the horse either from Spanish ranchers or from the *Calchaqui.* The *Abipón* first attacked the *Matará*, whom they obliged to migrate from the Bermejo River toward the Province of Santiago del Estero. According to Lozano (1941, p. 97), they helped the *Calchaquí*[4] when the latter, who had been deported or had migrated from the Calchaquí Valley (Salta), arose to regain their liberty. In the beginning of the 18th century, the *Abipón* fought against the same *Calchaquí*, who had settled north of Santa Fé, until the smallpox epidemic of 1718 almost wiped them out. Then the *Abipón*, no longer hampered by their rivals, turned against the Spanish settlements of Santa Fé.

In the first half of the 18th century, the *Abipón*, together with *Mocoví* and *Toba*, ranged over a vast area bounded on the north by the middle and lower course of the Bermejo River, on the east by the Paraná River, on the south by the Spanish settlements of Santa Fé and on the west by those of Cósdoba and Santiago del Estero. Here the *Abipón* were continually moving from place to place. Dobrizhoffer (1784, 2:4) writes, "The Abipones imitate skillful chess-players. After committing slaughter in the southern colonies of the Spaniards, they retire far northwards, afflict the city of Asunción with murders and rapine, and then hurry back to the south. If they have committed hostilities against the towns of the Guaranies, or the city of Corrientes, they betake themselves to the west. But if the territories of Santiago or Córdoba have been the objects of their fury, they cunningly conceal themselves in the marshes, islands, and reedy places of the river Paraná." In 1751, a party of *Abipón* entered the city of Santa Fé, killing and looting.

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[4] In 1665 Alonso de Mercado y Villacorta deported the Indians of the Calchaquí Valley to Buenos Aires. Lozano (1941, p. 96) states that these *Calchaquí* were different from those who lived on "ecomiendas" in the region of the Bermejo River. According to Del Techo and Lozano, *Calchaquí* had migrated into the Chaco to escape the oppression of the Spaniards. These refugees may have been those who rose against the Spaniards and formed an independent tribe north of Santa Fé about 1640. Two groups of *Calchaquí* near Santa Fé were the *Tocaque* and the *Colastiné.*

The first missionaries to visit the *Abipón* were the Jesuit Fathers Juan Fonte and Francisco de Angulo, who in 1591 baptized the children in the bands living near Concepción on the Bermejo River. In 1593 Fathers Alonso de Bárzana and Pedro de Añasco were sent to convert the *Matará* and the *Guaicuruan* tribes of the same region. Their missionary work lasted only 2 years and produced few results. However, Bárzana found time to write a grammar and a vocabulary of the *Abipón* language. In 1641 Fathers Juan Pastor and Gaspar Arqueyra made a brief sojourn amnog the *Abipón* of the Bermejo River.

The example of the *Mocoví* who had accepted Jesuit missionaries facilitated the conclusion of a peace treaty between the Spaniards and some of the *Abipón* bands. In 1748 the Jesuits founded the *Abipón* mission of San Jerónimo, which today is the prosperous city of Reconquista. The mission of Concepción was established in 1749 on the Inespin River and was later transferred to the junction of the Río Dulce with the Río Salado. San Fernando was built in 1750 on the Río Negro at the place of the present city of Resistencia. Timbó, or Rosario, on the Paraguay River (lat. 26°32′ S., long. 58°17′ W.), was inaugurated in 1763. The missionized *Abipón* were constantly harassed by the *Toba* and *Mocoví.*

The history of the *Abipón* after the expulsion of the Jesuits is somewhat confused. For many years they waged war against the *Toba* and *Mocovi*, who destroyed the missions of San Fernando and Timbó. In 1770 the *Abipón* of San Jerónimo and some other bands migrated to the eastern side of the Paraná River, at Las Garzas and Goya, to escape the inroads of the *Toba* and *Mocoví.* Some of the *Abipón* who had settled on the left bank of the Paraná River joined bands of marauders who were raiding the farms around Corrientes, Goya, and Vajada. *Abipón* warriors served under the famous leader, Artigas.

Little is known about the fate of the *Abipón* bands who even before the expulsion of the Jesuits had returned to the bush. Some of them tried to settle on their former territory on the Bermejo River, which had been occupied by the *Toba* and *Mocoví.* Rengger (1835, p. 343) speaks of constant skirmishes in which the *Abipón, Mocovi,* and *Toba* fought Paraguayan outposts. But, in spite of the continuous warfare along the frontier, the *Abipón* used to visit Asunción to dispose of the cattle stolen in the south. The advance of the military posts in the Chaco during the 19th century restricted their hunting grounds and made life more difficult for them, forcing numerous bands into submission. Many *Abipón* were slaughtered and others were absorbed into the Creole population. In 1858 there were still some *Abipón* in a reduction called Sauce, between Santa Fé and Córdoba (Lafone-Quevedo, 1896 d, p. 59). It is not altogether impossible that some more or less pureblooded *Abipón* may still be found in the Chaco santafecino.

Population of the Abipón.—About 1750 the *Abipón* tribe consisted of three large subgroups: The *Nakaigetergehè* (Forest People), the *Riikahè* (People of the Open Country), and the *Yaaukanigá* (Water People). According to Dobrizhoffer (1784, 2:106), the whole tribe numbered about 5,000. The population decreased rapidly after contact with the Spaniards. In 1767 there were 2,000 *Abipón* distributed in the four Jesuit missions.

Mocoví (*Mocobí, Mosobiae, Mogosnae, Amókebit, Frentones*).—The original home of the *Mocoví* was probably the plains between the upper Bermejo River and the Río Salado, near the *Toba*, their close relatives and frequent allies.

In the 17th century they are frequently listed among the "wild Indians" who roamed along the borders of the Province of Tucumán. At the beginning of the

17th century, when the *Abipón* acquired horses, the *Mocoví* showed signs of unrest. They participated in the destruction of Concepción on the Bermejo River (1632), and their raids threatened the settlers of Esteco (1662), Tucumán, Salta (1709), Santiago del Estero, and Córdoba. Parties of *Mocoví* or *Abipón* forced the inhabitants of the first Santa Fé to move their city in 1662 to its present location. The *Mocoví* were probably responsible for the flights of the *Lule* and of the *Malbalá* toward the Spanish frontier.

Pushed westward by the Esteban Urizar expedition (1710), the *Mocoví* raided toward the east and the south. They repeatedly attacked Santa Fé or its surroundings. Although the governor of Santa Fé, Francisco Javier de Echagüe y Andia, made peace with them in 1743, these marauding bands continued their depredations. In the same year, a Jesuit, Francisco Burgés, gathered a few *Mocoví* in a mission dedicated to San Francisco Xavier. He was succeeded by Father Florian Baucke, who wrote a detailed account of his experiences among the *Mocoví*. The establishment prospered and its population was increased by several bands under their respective chiefs. The Jesuits provided the Indians with cattle and made great efforts to turn them into sedentary agriculturists. Another *Mocoví* mission, San Pedro, was founded in 1765 on the Ispin-chico River, a tributary of the Saladillo River. Several *Mocoví* bands were gathered by the Franciscans in the mission of Nuestra Señora de los Dolores y Santiago de Lacangayé on the Bermejo River (1780).

In the middle of the 18th century, the total number of *Mocoví* was estimated to be two to three thousand. A popular chief was able to assemble a band numbering as many as 600 people. After the Jesuit expulsion in 1767, the two missions declined rapidly, but in 1785 San Xavier still had 1,049 Indians and San Pedro 638.

During the last part of the 18th century, the *Mocoví* of the missions were often at war with the *Abipón* of San Jerónimo, and these tribes attacked each other's villages. The White settlers were not spared, and the Province of Santa Fé was again exposed to the depredations of the Indian horsemen. The latter, however, were not as dangerous as they had been earlier in the century, when they seriously threatened communications between Buenos Aires and Perú.

A few hundred *Mocoví* still exist in the southern Chaco, near the Bermejo River. Most of them have sought refuge in the "Colonía" Napalpi, near Quitilipi.

Toba (*Tocoytus*, *Natekebit*, *Natákebit*, *Nactocovit*, *Ntocouit*, *Ntokowit*, *Yncanabacte*, *Toco'ít*, *Takshik*, *Frentones*).—The *Toba* lived principally in the region between the lower Pilcomayo and Bermejo Rivers, but until the end of the 19th century some bands roamed south of the Bermejo River as far as the Provinces of Santa Fé and Santiago del Estero. The Río Salado has consequently often been regarded as their southern limit. They were in possession of most of the lower Bermejo River from the ancient mission of San Bernardo to its mouth; but other *Toba* bands lived on the upper course of this river, in the region of Centa (now Oran) and along the San Francisco River. At the end of the 18th century some *Toba* bands moved north of the Pilcomayo River and settled near the headwaters of the Yabebirí River. Some penetrated the northern Chaco as far as the mission of San Ignacio de Zamucos (1741), which they attacked. The *Toba* in Paraguayan territory north of the Pilcomayo are often called *Toba-miri* (*Small Toba*) by the Paraguayans, while those of the Argentine (the *Takshik*) are known as the *Toba-guazú* (*Big Toba*).

The lower course of the Pilcomayo River from Salto Palmar to the Paraguay River is, or was, *Toba* territory. Small *Toba* groups are scattered from the lower Pilcomayo River to the Bermejo River. On the latter their western limit passes near the junction of the Teuco River with the ancient course of the Bermejo River. There are also *Toba* settlements south of the Bermejo near General Pinedo, but their exact limit cannot be ascertained since they are rapidly disappearing or are being assimilated into the Mestizo population of the Chaco. A large number of *Toba* are concentrated in the mission of San Francisco Solano (Taccagalé), near the mouth of the Pilcomayo River, and in the mission of Laishi (Formosa). The *Toba* of the Territory of Formosa call themselves *Ntocouit* or *Nactocovit*, but they are known as *Takshik* by the southern *Toba*.

On the middle Pilcomayo River, north of the Estero Patiño, there is a group of *Toba* now concentrated in the evangelical mission of Sombrero Negro. These Indians claim the name of *Toba* and regard themselves as different from the *Pilagá*, who live downstream in the region of the Estero Patiño, though actually both groups are closely related by blood ties and are hardly distinguishable. There are, however, slight dialectical differences between their languages (the upstream *Toba* use the *h* where the downstream Indians use *s*).

During the last century there were still important groups of *Toba* on the upper Pilcomayo River from Cavayurepotí (about lat. 22° S.) to the *Chiriguano* mission of Macharetí. Until 1932 a quarter of the mission was reserved for the *Toba* who were adopting the *Chiriguano* language and culture.

Nowadays some *Toba* work as peons in the lumber camps of Puerto Pinasco and Puerto Casado.

History of the Toba.—The first attempts to convert the *Toba* were made in 1591 by Fathers Bárzana and Añasco, who traveled to them from Concepción. Father Bárzana's *Toba* vocabulary and grammar still is a useful document.

The *Toba* of the lower Pilcomayo and Bermejo Rivers received the horse during the 17th century and, like the *Abipón* and *Mocoví*, became a vagabond tribe of mounted warriors. The *Toba* south of the Bermejo River directed most of their raids against the Tucumán frontier. Some *Toba* bands of the Pilcomayo region struck as far north as the *Zamuco* mission of San Ignacio.

The short-lived mission of San Xavier, founded in 1673, near Esteco, contained mostly *Toba*. In 1756, 212 *Toba* (*Dapicosique* or *Tapicosique*) were gathered in the Jesuit mission of San Ignacio on the Ledesma River (originally on the Sora River); [5] the settlement was abandoned in 1818.

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[5] In 1767 the mission of San Ignacio had a population of about 600 Indians, most of them *Toba*.

In 1762 the Jesuits founded another *Toba* mission, San Juan Nepomuceno, but a feud with the Indians of Valbuena soon led to its destruction. In 1780 the Franciscans, aided by Spanish military forces under Francisco Gavino Arias, established the mission of San Bernardo el Vértiz[6] on the middle Bermejo River with 500 *Toba*. The *Toba* of the upper and lower Pilcomayo River were Christianized by the Franciscans during the second half of the 19th century. In 1884–85 the *Toba* were partly pushed back to the Bermejo River by the expedition of General Victorica.

In 1916 and again in 1924, the Argentine Army had to put down an armed rebellion of the *Toba*, who had been driven to desperation by the encroachments of settlers on their last territories.

The *Toba* are still regarded by their Mestizo neighbors as a proud people who refuse to yield to servitude and are always ready to avenge an insult. The exploration of the Pilcomayo River was hampered by their resistance. In 1882 they killed the French explorer Crevaux, and in 1889, the Argentine geographer Ibarreta.

Population of the Toba.—In the 18th century, the Jesuits reckoned the total number of the *Toba* at 20,000 to 30,000. Those living on the Bermejo River were estimated at 4,000 to 5,000.

Cocolot.—The *Cocolot* were probably not a tribe but a group of *Toba* bands called by a name which was also applied to the *Mbayá* and to the *Lengua* (*Macá*).

Aguilot (*Abaguilot*).—The *Aguilot* were a *Guaicuruan* tribe—perhaps a subtribe of the *Toba*—who lived on both sides of the middle Bermejo River. According to Lozano (1941, p. 326), when they heard of the Urizar expedition in 1709, they abandoned their territory to join the *Mocoví* north of Santa Fé. Together these tribes repeatedly attacked the Spanish settlements. According to Azara (1809, 2:162), they migrated toward the Pilcomayo River about 1790, where they joined forces with the *Pilagá*, by whom they were absorbed during the 19th century. In the middle of the 18th century, they numbered about 1,000; 50 years later they could muster only 100 warriors (i. e., about 500 people).

Pilagá (*Pitilagá*, *Yapitalagá*, *Zapitalagá*, *Pitelahá*, *Pitaleaes*, *Aî*, *Guacurure.*)—The *Pilagá* are the only remaining tribe of the Argentine Chaco that has retained a predominantly aboriginal culture.

At the end of the 18th century, Azara (1809, 2:160) located them near the Pilcomayo River, in a region of lagoons which is probably the Estero Patiño, their present habitat. On the basis of flimsy historical and cartographic evidence, Kersten (1905, p. 40) assumes that they had migrated sometime during the second half of the 18th century from the middle Bermejo River to the Pilcomayo River. It is more likely that the *Pilagá* were listed among the tribes of the eastern bank of the Bermejo River merely because their territory extended toward that river, as it still did not long ago.

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[6] The mission of San Bernardo was abandoned in 1793.

In 1932 the *Pilagá* bands ranged across the marshy region of the Estero Patiño from Salto Palmar (Fortín Leyes) in the east to Buena Vista (Media Luna or Fortín Chavez) in the west. To the north their territory was bounded by the Pilcomayo River, and its southern limit corresponded more or less with the railway line from Formosa to Embarcación. Their main bands were concentrated under Cacique Garcete near Salto Palmar, and under Lagadik, near Fortín Descanso. Several other bands had taken refuge among the *Toba* of the Protestant mission of Sombrero Negro, on the Pilcomayo River. In 1936, harassed by the Mestizo settlers and the gendarmery, most of the *Pilagá* placed themselves under the protection of the South American Missionary Society and formed an independent village at Laguna de los Pajaros, about 20 miles east of Sombrero Negro. Unfortunately, the mission was abandoned in 1940, and the *Pilagá* returned to the vicinity of Fortín Descanso, where doubtless they will soon die out. Some of them agreed to live in the new colonias, Javier Muñiz and Florentino Ameghino, founded by the Argentine Government.

Population of the Pilagá.—Azara (1809, 2 : 161) put the adult male *Pilagá* population at 200, a figure far too low, for in 1930 the tribe numbered more than 2,000 people. After 1932, a smallpox epidemic and repeated punitive expeditions decimated the *Pilagá*. Tuberculosis and venereal diseases are also contributing to the decline of this once powerful and energetic tribe.

Payaguá (*Agaz*, *Cadiguè*, *Sariguè*, *Siacuás*).—Since the beginning of the conquest of Paraguay, the *Payaguá* are described as bold river pirates who, in their long and swift dugout canoes, sailed the Paraguay River from the Xarayes marshes to the Paraná River. They even descended the Paraná River to the vicinity of Santa Fé and ascended it to Salto Chico.

The *Payaguá* were divided into two main groups. The northern group, the *Cadigué* or *Sarigué* (who had three camps in the region of Itapucu), lived at about lat. 21°5′ S. The southern group, the *Magach*, *Tacumbú*, or *Siacuás* (*Sigaecoas*), were at lat. 25°17′ S. In 16th-century Spanish accounts, the southern *Payaguá* are designated as *Agaz* (*Agaces*) and the northern as *Payaguá*.

History of the Payaguá.—The *Payaguá* have a long record of hostility against the Spaniards and Portuguese. In 1527 they attacked Cabot's ship. In 1539, they massacred Juan de Ayolas and his party near the Cerro San Fernando (lat. 20° S.). During the 17th and 18th centuries, they infested the Paraguay River, boarding merchant launches and raiding villages. They were a particular threat to the Portuguese of Matto Grosso traveling from São Paulo to Cuyabá. After their alliance with the *Mbayá*, the *Payaguá* became even more dangerous. They occupied the islands of the Paraguay River and even had a fortified village opposite the mouth of the Jejuy River.

Twice (1703 and 1715) the Jesuits made unsuccessful attempts to convert the *Payaguá*. These Indians kidnapped Father Barthelemey de Blende and finally killed him. In 1717 they murdered two other Jesuit missionaries (Lettres édifiantes et curieuses, 1819, 5: 112, ff.).

In 1740 the southern *Payaguá* agreed to settle in Asunción.[7] The northern groups joined them in 1790, and they resided for almost a century in a special section of the city. They retained their ancient customs for a long time, but lived on good terms with their Spanish neighbors, to whom they sold pots, clothes, fish, and fodder for animals.

In 1800 their number was recorded as about 1,000; in 1820, 200; today they are completely extinct.

Guachí (*Guachie*, *Guachicas*, *Guajie*, *Guacharapos*, *Guarapayo*, *Guasarapo*, *Guajarapo*, *Guajnie*, *Guaichaje*, *Bascherepo*, *Guaxarapo*).—This tribe of river pirates, traders, and fishermen is mentioned several times in the chronicles and documents concerning the discovery of the upper Paraguay River. In the 18th century, they lived on the northern side of the Mondego (Miranda) River and in the "cañadas" formed by the heights of the Serrania de Amambay, and, like the *Guaná* (see below), were vassals of the *Mbayá*. They were divided into a few "capitanias" (probably bands) and, though canoe Indians, had permanent villages and fields where they grew maize, sweet potatoes, gourds, and tobacco. They wove beautiful striped blankets which were much in demand among the *Mbayá*. About 1800 their able-bodied warriors numbered only 60 (Azara, 1809, 2: 80). According to Castelnau (1850–59, 2: 468), in the middle of the past century they were almost extinct. Their name appears for the last time in 1860 in an official document which refers to their presence near Miranda. The linguistic relationship of the *Guachí* is discussed on p. 214.

Mahoma.—Sixteenth- and seventeenth-century documents and chronicles mention a tribe called *Mahoma* (*Hohoma*) who lived on the lower Bermejo River, around the Laguna de las Perlas (identified with Laguna Blanca by Domínguez, 1925, p. 185). These Indians, harassed by their neighbors, settled in the village of San Ignacioguazú. Originally, the *Mahoma*, whose linguistic affinities are unknown, numbered 800 families. Around 1752 only 15 or 16 remained, and today they are completely extinct. Judged from their location, they might have been related to the *Toba* or the *Mocoví*.

THE MASCOIAN LINGUISTIC FAMILY

The *Mascoian* or *Machicuyan* group, formerly known as *Enimagá*, is composed of the following tribes which speak scarcely differentiated dialects: *Mascoi*, *Kaskihá* (*Guaná*), *Sapukí*, *Sanapaná*, *Angaité*, and *Lengua*.

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[7] Even after they had been settled in Asunción, the *Payaguá* remained somewhat nomadic. They frequently left Asunción to live at Ñeembucu, Tapuá, or near Villa de San Pedro on the Jejuy River, or at Villa-Real. (See Rengger, 1835, p. 137.)

Mascoi.—The *Mascoi* (*Machicuy*, *Cabanatith*, *Tujetge*) seem to have been a tribe of the Pilcomayo region that migrated northward after the *Guaicurú-Mbayá* had vacated the region opposite Asunción to establish themselves in Paraguay. About 1800 the *Mascoi* were concentrated on the Araguay-guazú River, but some of their bands ranged in the interior as far as the region of Chiquitos. They were divided into 19 bands, all listed by Azara (1809, 2 :155). They could muster from 800 to 1,200 warriors, some on foot, the others on horseback. The modern *Lengua* are undoubtedly the descendants of the 18th-century *Mascoi*.

Kaskihá.—The *Kaskihá* (formerly known as *Guaná*, but not to be confused with the *Arawakan*-speaking *Guaná*) now live near Puerto Sastre, on Riacho Yacaré and by Cerrito, but their aboriginal habitat was farther west in the interior of the Chaco, 80 leagues northwest of Puerto Casado. About 1880 they were a fairly large tribe, but they have dwindled to about 1,000 today.

Sapukí and Sanapaná.—The *Sapukí* (*Sapuqui*) live somewhat inland from the Paraguay River, south of the *Kaskihá;* the *Sanapaná* (*Kyisapang*) are located south of Puerto Sastre on the Río Salado and on the Galván River. In recent years, according to Belaieff (1941), they were found from Laguna Castilla to the vicinity of Puerto Casado.[8]

Angaité.—Immediately to the south of the last-mentioned tribes are the *Angaité*, whose habitat at the end of the 19th century extended from San Salvador to Puerto Casado. Today they have 16 "tolderias" (camps) near Puerto Pinasco and a few more scattered in the same area (e. g., Station Km. 80).

Lengua.—The *Lengua* (not to be confused with the *Lengua-Enimagá* or *Macá*) range along the western bank of the Paraguay River from Puerto Pinasco to the Montelindo River and westward to Palo Blánco and Campo de Esperanza in the Mennonite country, viz., from lat. 22°30′ to 24° S. and inland about 150 miles (240 km.) from the Paraguay River. They are split into 10 main bands.[9] Part of the *Lengua* have lived since 1887 under British missionaries in various stations, the most important of which is Makthlawaiya. The description of the *Lengua* by Grubb (1913), one of their missionaries, is an outstanding source on modern Chaco ethnography. Today the entire *Lengua* population is estimated at 2,300.

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[8] Hassler (1894, p. 351) has a brief reference to a group which he calls *Cuximanopana*, and says they are closely related to the *Guaná* and *Sanapaná*. These Indians, whose name does not appear in any other source, lived between the latter tribes along the western side of the Paraguay River.

[9] According to Belaieff (1941, p. 23), a *Lengua* subtribe which lives on the Mosquito River from its headwaters to a point 12 miles (20 km.) from Puerto Casado, is called *Toba* by the Paraguayans and *Kilyetwaiwo* by their Indian neighbors.

Unidentified tribes of the Mascoi region.—Several documents of the 16th century (Comentarios de Alvar Nuñez Cabeza de Vaca, 1852, pp. 565–566) refer to Indian tribes living in the Chaco near the ancient *Guaicurú*. These were the *Guatata*, on the lower Pilcomayo River, and their neighbors, the *Nohaague*, *Empirú*, and *Yaperú* (*Apirú*), whose exact habitat cannot be determined except that they lived on the western side of the Paraguay River, not far from Asunción. The *Yaperú* were probably the same as the *Naperú*, who dwelt west of Cerro San Fernando (lat. 20° S.), 40 leagues inland. It is possible that these various names apply to bands of the *Mascoian* family (Moreno, 1921) or to ancient *Guaná* (*Arawakan*) subgroups.

THE LULE-VILELAN LINGUISTIC FAMILY

Scant information is available on the *Lule-Vilela*-speaking Indians. Their subtribes or bands ranged between the Bermejo River and the Río Salado during the 17th and 18th centuries, but most of them vanished during the next hundred years.

Father Antonio Machoni published in 1732 an "Arte y vocabulario de la lengua Lule y Tonocoté," based on the *Lule* dialect spoken in the mission of San Esteban de Miraflores. The title implies that the *Lule* of Miraflores were linguistically related to the *Tonocoté*, who, according to several 16th-century documents, inhabited the plains of Tucumán, Esteco, and Santiago del Estero.

According to Father Machoni, the *Lule* or *Tonocoté* language was spoken by five tribes: the *Lule*, *Isistiné*, *Touquistiné*, *Oristiné*, and the *Tonocoté* proper. All of these except the *Tonocoté* formerly lived in the region of Esteco and along the Río Salado. These tribes were the *Lule* whom Father Bárzana Christianized at the end of the 16th century and who, at the beginning of the 17th century, fled beyond the Río Salado into the Chaco to escape the Spanish "encomiendas." In 1710 they surrendered to Esteban de Urizar and agreed to settle in Jesuit missions. Machoni also states that about 60,000 *Tonocoté* were first concentrated in the region of Concepción on the Bermejo River, but later migrated north to the lower Pilcomayo and Yabebirí Rivers when Spanish oppression became intolerable.

It is obvious that Machoni has confused the *Tonocoté*-speaking *Matará* (p. 232) of Concepción with the *Tonocoté* proper who, it is well known, were the inhabitants of the plains of Tucumán and Santiago del Estero.

The migration of the *Lule* from Esteco to the Chaco is substantiated by a document of 1690 published by P. Cabrera, (1911, pp. 44–45).

The linguistic identification of the *Lule* of Miraflores with the ancient *Tonocoté* was challenged by Hervás (1800–1805, 1:173–76), Lafone-Quevedo (1894), and others. But, as the *Tonocoté* grammar written by Father Bárzana around 1586 has been lost and was unknown to Machoni, there is no way of confirming or disproving the latter's contention on linguistic grounds. It seems probable, however, that the *Toconoté* and *Lule*,[10] who are often differentiated in ancient documents, belonged to two different families. (See Bárcena, 1885, p. liv.) From the cultural viewpoint, it seems that the sedentary *Tonocoté* or *Juri*, as they are sometimes called, had little in common with the *Lule*, who were a typical Chaco tribe. The archeological material found in the territory formerly occupied by the *Tonocoté* does not bear the slightest resemblance to the pottery or other artifacts used by the Chaco Indians. Therefore, the *Tonocoté* were either the carriers of the La Candelaria culture or perhaps—as Canals Frau suggested (1940 b)—the builders of the so-called "Civilization of the Chaco santiagueño." These people are described in Volume 2.

The northern and eastern part of the *Tonocoté* territory seems to have been overrun during the 16th century by bands of wild Indians, probably the *Lule*, whose decendants were Christianized by Machoni in his mission of Miraflores.

In the beginning of the 17th century, a tradition arose among the Spanish settlers of a vast migration of *Tonocoté* into the interior of the Chaco. Thus, in 1630 Father Gaspar Osorio speaks of the *Tonocoté* as a powerful tribe of the interior of the Chaco; the same legend is echoed by Lozano. The presence of *Matará* on the Bermejo River seems good evidence of such a migration. Not unlikely, the *Matará* entered the Chaco after the Conquest, and their migration formed the basis for the rumor about the *Tonocoté* tribe lost in the wilderness. The *Matará* were isolated in a region otherwise occupied entirely by *Guaicuruan* tribes whose culture was far lower than their own.

The Lule.—The loose usage of the term *Lule* in documents dealing with the Conquest and Christianization of the plains of Tucumán and Salta has caused great confusion in the tribal nomenclature of the Argentine Chaco.

According to Del Techo (1673, bk. 1, ch. 39; bk. 2, ch. 20) there were two kinds of *Lule*: the sedentary *Lule*, who lived in a "mountainous" region, and the nomadic *Lule*, who, "like Arabs," roamed the plains of Tucumán and Salta, harassing the peaceful *Tonocoté* farmers. The mountain *Lule* are said to have understood three languages: *Quechua*, *Tonocoté*, and *Cacan*, but are listed separately from the *Diaguita*. Boman (1908, 1:57) considers them a *Diaguita* tribe, but more recent authors do not admit a difference between the two kinds of *Lule* and identify both of them with the *Lule* of the mission of Miraflores. (See Canals Frau, 1940 b, pp. 230–232.) The *Lule* were probably a Chaco tribe that invaded the plains along the foothills of the Andes and partially destroyed the builders of the La Candelaria culture. In the 16th century, the limits of the *Lule* seems to have been: To the north, the Valley of Jujuy; to the west, the chain of the pre-Cordillera; to the south, the basin of the Sali River; and to the east, long. 63° W.

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[10] Father José Tiruel writing in 1602 about Bárzana says that he learned "la lengua Tonomoté y Lule" (quoted by G. Fúrlong (1941, p. 10)).

The *Lule* Christianized by Father Antonio Machoni were often called *Big Lule* to distinguish them from the *Small Lule*, a generic term for the *Isistiné*, *Toquistiné*, and *Oristiné*, with whom the *Big Lule* were at odds. In 1710 the *Lule*, probably frightened by the expedition of Esteban de Urizar and by the constant raids of the *Toba* and *Mocoví*, agreed to settle near the Fort of Valbuena. They were placed under the care of Father Machoni, who founded there the first mission of San Esteban, which in 1714 was transferred to the Río Salado (Pasaje or Juramento River), and was henceforward known as San Esteban de Miraflores. A raiding party of Chaco Indians destroyed the mission in 1728, and the Jesuits moved closer to the Spanish frontier but, still exposed to the attacks of the Chaco tribes, they finally brought the *Lule* to Tucumán (1737). When the danger had subsided, they restored San Esteban de Miraflores on the Río Salado and settled there with the *Big Lule* and some 30 *Omoampa* families.

The *Isistiné* and *Toquistiné*, who formerly lived to the northeast of Valbuena, were gathered in 1753 in the mission of San Juan Bautista de Valbuena, also on the Río Salado.

When the Jesuits were expelled from America, Miraflores had 800 Indian neophytes and Valbuena about 850; the total number of the *Lule* was about 1,600 in the 18th century.

The *Oristiné* were "lost" in the Chaco, and their name never appears in later Jesuit relations.

References on the Lule.—Boman, 1908, 1: 43–58; Cabrera, 1911; Camaño y Bazán, 1931, pp. 321, 333–336; Canals Frau, 1940 b, pp. 230–232; Charlevoix, 1757, 4: 250–255, 262–274, 306–314; G. Fúrlong, 1941; Hervás, 1800–1805, 1: 171–172; Lafone-Quevedo, 1894, 1895 a; Luzano, 1941, pp. 89–103; Serrano, 1940 e.

Vilela.—The *Vilela* branch included the following subgroups (parcialidades): *Vilela* proper, *Chunupí*, *Sinipé*, *Pasain* (*Pazain*), *Atalalá*, *Omoampa* (*Umuampa*), *Yoconoampa* (*Yucunampa*), *Vacaa* (Those of the Excrements), *Ypa* (*Hipo*, "Those Who Live in a Hole"), *Ocolé* (The Foxes), *Yecoanita* (The Archers), *Yooc*, (*Yoo*), *Guamalca*, and the *Taquete*.

That several *Vilelan* parcialidades were, like the *Mataco* and *Pilagá* bands, named after animals, character traits, or objects, suggests that they were mere bands either of the *Vilela* proper or of the *Chunupí*.

In the 17th century, the *Vilelan* bands were scattered on both sides of the Bermejo River, from Esquina Grande to San Bernardo. About 1630 the Jesuits already knew of their existence through the *Mataco* and *Toba*, but did not visit them. The territory of the *Vilela* was reached in 1671 by a Spanish expedition under Juan de Amusategui.

The *Vilela* proper were found by the Spaniards on the middle Bermejo River near Lacangayé in 1710.

They did not offer any resistance, but were disinclined to leave their country to accept Spanish rule. It was only in 1735 that the *Vilela*, who had been unjustly attacked by a Spanish military expedition, asked to be placed in a mission. The 1,600 *Vilela* who left the Chaco were entrusted to secular priests who established the larger part of them at San José on the Río Salado near Matará, and a few families at Chipeona, in the region of Córdoba. The mission, entirely neglected by the curates, declined rapidly, and would have disappeared if the Jesuits had not taken charge of the *Vilela*, and in 1761 transferred them to the new mission of San José, at Petacas on the Río Salado (Pasaje River), lat. 27° S. At that time the *Vilela* numbered only 416. In 1762, 300 *Vilela*, who had remained in the bush along the southern side of the Bermejo River, joined their relatives of Petacas. In 1767 there was near Lacangayé a group of about 100 *Vilela* who had formed part of the ephemeral mission of Nuestra Señora de la Paz (Valtoleme). Those in the mission of Petacas totaled 756.

In 1780 the *Vilela* of Petacas returned to the Chaco wilderness; for a century nothing is known about their fate. At the end of the 19th century, Pelleschi met the few surviving *Vilela* living with *Mataco* Indians, at Fort Gorriti, near Rivadavia, and obtained from them a short vocabulary which was published by Lafone-Quevedo (1895 a) with grammatical notes. At the beginning of the century, there were a few *Vilela* in the reservation of Quetilipí.

Pasain, *Omoampa*, *Yoconoampa*, *Atalalá*, *Ypa*.—These bands, all closely related, ranged near the marshes of the Río del Valle, a tributary of the Bermejo River, and east of the Río Salado (Pasaje River).

In 1763 Fathers Roque Gorostiza and José Jolis, while traveling along the right side of the Bermejo River, encountered four bands of *Vilela*, *Pasain*, *Vacaa*, and *Atalalá*, who were being pursued by a party of *Toba* and *Mocoví*. Under the circumstances the missionaries had no difficulty in collecting them in the mission of Macapillo (Nuestra Señora del Pilar). From an initial 150, the number of Indians in the mission increased to 600; but in 1767 only 200 remained as permanent neophytes (Muriel, 1918, p. 111; G. Fúrlong, 1939, pp. 128–129).

The several attempts by Father Andreu to Christianize the *Omoampa* were unsuccessful until 1751, when some *Omoampa* bands, who had seceded from the rest of the tribe and joined the *Isistiné*, decided to settle with the *Lule* in the mission of Miraflores. In 1763, 230 *Omoampa* of Miraflores were moved to the mission of Ortega (Nuestra Señora del Buen Consejo) to help in the conversion of the *Chunupí*, their close relatives.

In 1767 the Indians, mainly *Pasain* and *Omoampa*, in these two missions totaled about 400. One hundred *Vacaa* and *Atalalá* were quartered at Macapillo. Both missions contained also a few *Yeconoampa*, *Ypa*, and *Chunupí* families.

After the expulsion of the Jesuits, many *Pasain* returned to their native haunts, where some of their families had remained independent. The tribe disappeared during the 19th century.

Chunupí (*Chunipí*, *Chanupí*).—The *Chunupí*, whom Lozano (1941, p. 91) describes as peaceful foot Indians, were discovered on both sides of the middle Bermejo River during the campaign of Esteban de Urizar in 1710.

They agreed then to settle in missions, but never kept their promise. In 1759 they were found again by Father Richer, who served as chaplain of a Spanish expedition that killed a great many of them.

In 1762 Father Roque de Gorostiza, guided by *Omoampa* Indians, visited with Father Jolis the *Chunupi* villages on the left side of the Bermejo River, near La Encrucijada (40 leagues below the junction of the Bermejo and San Francisco Rivers). He succeeded in persuading 150 or 200 of these Indians to form a mission which was established on the Río Salado, first under the name of Nuestra Señora de la Paz (Valtoleme), and then transferred below the bend of the Río Salado (Pasaje River) at Ortega, where it was called Nuestra Señora del Buen Consejo. Three years later the *Chunupí*, who had quarreled with the Christianized *Omoampa* in the same mission, asked to be moved to the mission of Macapillo with the *Pasain*. After a fight with the latter, they returned to their former homes on the Bermejo River.

At the end of the 18th century, Spanish expeditions found the *Chunupi* on the right banks of the lower Bermejo from Esquina Grande to the mission of San Bernardo, where they lived with the *Malbalá* and *Sinipé* under a single chief.

In 1826 the explorer Pablo Soria found some *Chunupí* on the middle Bermejo below Esquina Grande. He states that they, like the *Mataco*, went to work for the Whites in the sugar plantations of Salta and Jujuy (Arenales, 1833, p. 253).

In the second half of the last century, the *Chunupí* were reported on the Paraná River opposite Corrientes. With the help of the *Toba*, they occasionally attacked trading boats. By 1876 they had been reduced to 252, and toward the end of the century the survivors eked out a precarious living selling curios and produce of the bush in Corrientes. Today they seem to be entirely extinct or to have been absorbed by the Mestizo population of the Chaco.

According to Father Gorostiza (G. Fúrlong, 1939, p. 118), the *Yooc* (*Yoo Guamalca*) and *Ocolé* were two bands of the *Chunupí* tribe. Both lived on the left side of the Bermejo, the former some "20 leagues" below the *Chunupí*, the latter across the Laguna Colma (Camaño y Bazán, 1931, p. 330). In 1767 the *Yooc* numbered 200, the *Ocolé* between 40 and 50.

The *Yecoanita* (*Yecomita*), probably a *Chunupí* band, lived between the *Chunupí* and the *Yooc*. They were no more than 30 in 1767.

Sinipé (*Sinipi*, *Signipé*, *Sivinipi*).—The name of these Indians is always listed with that of the *Chunupí*. They lived on the right side of the Bermejo River, somewhat to the north of Lacangayé.

References on the Vilela.—Ambrosetti, 1894 a; Arias, 1837; Cornejo, 1836; Fontana, 1881; Fúrlong C., 1939; 1941, p. 144; Lafone-Quevedo, 1895 a; Lozano, 1941, passim; Muriel, 1918, pp. 102–110.

TRIBES OF THE BERMEJO BASIN OF UNCERTAIN LINGUISTIC AFFILIATION

Malbalá.—The *Malbalá*, whose tongue is said to have differed from *Vilela*, *Lule*, *Mataco*, and *Toba* (Camañ y Bazán, 1931, p. 336), formed a linguistic enclave within a region otherwise inhabited entirely by

Lule-Vilelan groups. Driven by the *Mocoví* from their original home, farther to the west along the Valbuena River, the *Malbalá* migrated to the middle Bermejo River close to the *Chunupí*, with whom they maintained cordial relations (Lozano, 1941, pp. 88, 366).

Although regarded by the Spaniards as very warlike, the *Malbalá* offered no resistance to the Urizar expedition in 1710, and readily agreed to settle under Spanish control on the Valbuena River. The 400 families that left their homes for this purpose were deported to Buenos Aires, but most of them succeeded in escaping to the Chaco after killing their guards. Only a few families reached Buenos Aires, where they were allotted to an encomendero (Lozano, 1941, p. 381).

In 1750, 31 *Malbalá* families were placed under missionary care near Fort San Fernando on the Río del Valle, but soon fled into the bush, where they were attacked by the Spaniards. In 1757 many *Malbalá* were wantonly slaughtered by the garrison of San Fernando.

According to Camaño y Bazán (1931, p. 336), about 20 *Malbalá* families survived in 1757, scattered among the *Chunupí*, *Mocovi*, and *Mataco*. Some *Malbalá* resided in the mission of Macapillo, where their presence is still mentioned several years after the expulsion of the Jesuits. At the end of the 18th century, the Spanish explorers of the Bermejo River speak of independent *Malbalá*, somewhat to the north of the mission of San Bernardo (lat. 25° S.), who had united with *Chunupí* and *Sinipé* to form a single nation of about 400 persons. Their name fails to appear in later 19th-century sources.

Matará (*Amulalá*).—The *Matará*, whose original habitat was the lower Bermejo River, were probably related to the extinct *Tonocoté*, for Father Alonso Bárzana preached to them in the *Tonocoté* language, and the Jesuit relations repeatedly state that they spoke that language.

Don Alonso de Vera, founder of Concepción on the Bermejo River, settled 7,000 *Matará* in a new city called La Rioja. After the destruction of Concepción, the *Matará* were slowly driven to the south by their neighbors, the *Abipón*. Fathers Juan Pastor and Gaspar Cequeyra visited them in 1641 and were greatly shocked to find them almost pagan, though under the supervision of a curate. At that time, they lived 100 leagues away from Santiago del Estero. Like Father Bárzana, Father Pastor spoke with them in *Tonocoté*.

There were still 700 or 800 *Matará* in 1767, all serfs of the Urejola family of Santiago del Estero, and living in a town called Matará on the Río Salado (lat. 28°6′ S.). They had forgotten their original language and spoke *Quechua*.

References.—Charlevoix, 1757, 2: 411–413; Del Techo, 1897; 1: 187–193, 5: 151–152; Jolis, 1789, pp. 491–492; Serrano, 1938 a.

THE MATACOAN LINGUISTIC FAMILY

The *Mataco-Macán* linguistic family extended in a solid block across the Chaco from the Andes almost to the Paraguay River, along the Pilcomayo River to its lower reaches, and along the Bermejo River to approximately long. 61° W.

The main tribes of this family are: The *Mataco* proper, the *Chorotí* (*Yofuaha*), the *Ashluslay* (*Chulupí*, not to be confused with the *Vilela*-speaking *Chunupí*), and the *Macá*.

Mataco.—The habitat of the *Mataco* proper (*Mataguayo*) has remained almost unchanged since the 18th century, when it was first possible to bound it with some accuracy. In 1767 the westernmost *Mataco* villages were scattered along the upper Bermejo, San Francisco, and Burruay Rivers. Some *Mataco* families had settled at Caiza, and in the missions of Rosario de las Salinas, Nuestra Señora de las Angustias de Centa, and San Ignacio de Ledesma. From Salinas to the Pilcomayo River the boundary skirted the first spurs of the Andes; there were, as today, *Mataco* villages along the Itiyuro River near the *Chané*. The Pilcomayo *Mataco* extended to the country of the *Toba*, in the region of Estero Patiño. On the Bermejo River, where a great many bands were concentrated, their territory began above the junction of the San Francisco and Bermejo Rivers and ended at Esquina Grande,[11] on the right side of the Bermejo River, but on the left bank *Mataco* villages were scattered all the way down to the *Toba* mission of San Bernardo (lat. 25°30′ S.).[12] The *Mataco* occupied the angle formed by the south side of the Bermejo River and the Río del Valle. In 1881 their territory is defined by Fontana as follows:

> From the Campos of Agusirenda or Angostura del Itiyuro, 120 leagues down the Bermejo River, and from Oran or Laguna Verde to the Pilcomayo. Their main villages were located along the Bermejo, Teuco, Yegua, and Quemada Rivers.

A list of *Mataco* bands is given by Lozano (1941, p. 81), but their names do not suggest those of modern bands, which are called after animals, objects, or character traits. Lozano's subgroups (parcialidades) were probably named for influential chiefs.

In the 19th century, the northwestern *Mataco*, who dwelt along the foothills of the Andes between the Cordillera de Pirapo, the Pilcomayo, the Piquirenda, and Itiyuro Rivers, were generally called *Nocten* (*Octenai.*) The term *Vejos* (*Wejwos*, probably the same as *Hueshuos*), which has replaced the now obsolete *Mataguayo*, is a derogatory nickname applied to the *Mataco* of the region of Oran and Embarcación. The *Mataco*, who have scores of villages on the right bank of the Pilcomayo from lat. 23° S. down to Puerto Irigoyen (Fortín Linares), are called *Guisnay* (*Güisnai*). The river *Mataco* refer to inland groups as the "Forest Dwellers" (in Spanish, "Montaraces").

History of the Mataco.—The *Mataco* were discovered in 1628 by the expedition of Ledesma, which led to the founding of Guadalcázar. They were visited the same year by Father Gaspar Osorio, who estimated their number to be about 30,000. In 1635, Jesuit missionaries remained for a while in a *Mataco* village near the Bermejo River hoping to induce the Indians to form a mission, but the *Mataco* evidenced little disposition to become Christian and even plotted the death of the fathers, who returned to Jujuy.

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[11] According to Camaño y Bazán (1931, p. 333), at La Encrucijada below the junction of the Bermejo River with the Jujuy River.

[12] The region between La Encrucijada and San Bernardo was a no-man's land.

In the second half of the 17th century, the *Mataco*, formerly reputed to be a peaceful tribe, became restless and advanced toward the Spanish frontier. Probably they were pressed from behind by other *Mataco* tribes (*Guisnay* or *Chorotí*) who, in turn, had been driven toward the west by some *Guaicurú* tribe. A Spanish expedition in 1671, under Amusategui, subdued the most menacing *Mataco* bands. A period of peace followed these conflicts, and, during the first half of the 18th century, many *Mataco* went to work, as they do nowadays, for the Whites of Salta and Jujuy as lumberjacks or on the sugar plantations.

In 1756 the mission of San Ignacio was founded on the Ledesma River for the *Toba* and *Mataco*. The Franciscans who soon succeeded the Jesuits were unable to prevent conflict between the two tribes, and in 1779 formed a new mission, Nuestra Señora de las Angustias de Centa, exclusively for the *Mataco*. But this mission declined rapidly after the foundation of Oran, in 1794, whose inhabitants had sworn to exterminate the Indians. In order to save the neophytes, the Franciscans transferred part of them to the short-lived missions of Zaldua (1800) and Río Seco (1802 to 1806) on the Bermejo River. In 1810 there were only 221 *Vejos* left in the mission of Centa. At the time of the expedition of D. Francisco Gavino Arias to the Chaco (1781), about 1,000 *Mataco* of the Bermejo River were Christians, many of whom were settled in San Bernardo with the *Toba*.

During the 19th century, the *Mataco* of the Bermejo area fell under the domination of colonists, whose harsh treatment caused some of them to attack Colonia Rivadavia in 1863. This rebellion was used to justify a massacre of the *Mataco* which left only 3,000 in this region in 1872.

Today the *Mataco* are still numerous in the region of Embarcación, along the Pilcomayo River from the Itiyuro River to Puerto Irigoyen and around the railway station of Las Lomitas. Many bands are concentrated in the Protestant missions of El Algarrobal, El Yuto, San Patricio, and San Andrés. Some occupy a reservation of their own along the Pilcomayo River and other bands are in government colonies.

Many *Mataco* make a living as lumberjacks and all of them migrate annually to the sugar plantations of Jujuy and Salta. They are rapidly merging with the Mestizo population of the Chaco, and their acculturation is greatly facilitated by their eagerness to become assimilated. Their number at the end of the 19th century was estimated at about 20,000.

Agoyá, Tayni, and Teuta.—According to Father Gaspar Osorio (Lozano, 1941, p. 172), the *Agoyá*, *Tayni* (*Taynoa*, *Tauni*), *Teuta*, and *Mataco*, whom he visited in 1628 in the region of the upper Bermejo, spoke related dialects. On the basis of this statement, Camaño y Bazán (1931, p. 333) classifies them in the *Matacoan* family in spite of Lozano's (1941, p. 81) statement to the contrary. According to Father Osorio, the *Agoyá* numbered 1,500; the *Teuta*, 4,500; and the *Tayni*, 20,000. Lozano (1941, pp. 80–81) lists 183 *Tayni* and 47 *Teuta* "pueblos." It is unlikely that such numerous tribes vanished suddenly in the 18th and 19th centuries to be replaced by *Mataco;* it must be assumed, therefore, that they were *Mataco* subgroups who later were known under other names or simply as *Mataco*.

Ojotá and Taño.—The *Ojotá* and *Taño* were two closely related tribes who, in the 17th century, lived near the town of Guadalcázar, near the junction of the Centa and Bermejo Rivers. Most of our information on them is contained in Lozano (1941), who distinguishes them both from the *Tayni* and the *Mataco*, who occupied the same area. Their language was different from *Toba* (Lozano, 1941, p. 239). Hervás (1800–1805, 1:164) includes the *Ojotá* among the *Mataco* subgroups, but is less certain about the *Taño*.

When Father Diego Ruiz visited the *Ojotá* and *Taño* in 1682, they were being raided by the *Chiriguano*, who kidnapped their women and children. They were also in great fear of the *Toba* and *Mocoví*. Insecurity made them eager to put themselves under Spanish protection in the mission in the valley of Centa, near Fort San Rafael. The following year a party of *Toba* and *Mocoví* attacked the mission, killing Fathers Antonio Salinas and Pedro Ortiz. The terrified *Ojotá* and *Taño* deserted the mission to defend their territory. In 1710 the Jujuy detachment of the Urizar expedition forced the *Ojotá* to settle near Fort Ledesma, from whence they were deported to Buenos Aires (Lozano, 1941, p. 352).

Palomo.—The *Palomo*, often mentioned by Lozano (1941, pp. 83, 177, etc.), were, according to Camaño y Bazán (1931, p. 333), a *Mataco* subgroup. Their exact location is uncertain but seems to have been somewhere on the right side of the middle Bermejo River, among or near *Vilelan* bands.

Hueshuos and Pesatupe.—The *Hueshuos* are obviously the modern *Vejos*. The affiliation of the *Pesatupe* to the *Matacoan* family is stated by Camaño y Bazán (1931, p. 333).

Chorotí (*Tsoloti*, *Soloti*, *Zolota*, *Yofuaha*, *Manuk*, *Maniuk*).—Their name under the form *Chorotí* and *Zolota* appears for the first time in Lozano (1941, pp. 59, 81), who also lists 18 of their bands.

In 1915 half of the *Chorotí*, whose total population was 2,500, lived on the Pilcomayo River near Fortín Guachalla. The remainder ranged along the Pilcomayo River up to Villamontes, between latitude 21°30′ and 22°30′ S., and a few families roamed inland 10 or 15 leagues from the river. In 1928 *Chorotí* camps were reported near La Esmeralda, Guachalla, and Galpón.

Ashluslay (*Chunupí*, *Chulupí*, *Choropí*, *Sówa*, *Sówuash*, *Suhin*, *Sotiagai*, *Sotegaraik*, *Etehua*, *Tapieté*).—The *Ashluslay* are known to the White settlers of the Chaco either as *Chulupí* (sometimes *Chunupí*) or as *Tapieté*, but to avoid confusing them with the *Chunupí* of the Bermejo River, who belong to the *Lule-Vilelan* linguistic family, or with the *Tapieté*, who are a different tribe (see below), it is more advisable to designate them as *Ashluslay*, a name first popularized by Nordenskiöld (1912, p. 28; Rydén, 1935, p. 27).

The *Ashluslay* inhabit the plains north of the Pilcomayo River from Fortín Guachalla to the region of Esteros and the upper Río Confuso.

Some groups reached the Río Verde, but the bulk of the tribe was concentrated in the region of Fortín Muñoz.

The *Ashluslay* are first mentioned in the report of the Daniel Campos expedition from Bolivia to Paraguay, 1833. In 1908 and 1909, respectively, they were visited by two anthropologists, Hermann and Nordenskiöld. Subsequently, they have received only scant attention from anthropologists and travelers, though they have maintained their native culture almost intact until recent times. Early in this century, *Ashluslay* bands began to migrate every winter to the sugarcane plantations of the Argentine. Thus they obtained horses, cattle, and many other European goods. During the Bolivian-Paraguayan war, many of them, driven from their homes, were forced to take refuge in Argentina, where they were well received by their former enemies, the *Toba* and *Pilagá*, but were often in conflict with the Argentine Army. In these years the tribe, whose number was estimated by Nordenskiöld at 10,000 in 1909, has dwindled to only 3,000. A great many *Ashluslay* have settled in the missions of the Oblates of Mary, at San José de Esteros, San Leonardo (formerly Laguna Escalante), Imaculada Concepción (Guachalla), and Santa Teresita (Lopez de Filipis). Father W. Verwoort estimates the total number of *Ashluslay* in 1944 at about 15,000.

Lengua-Enimagá and the so-called Cochaboth family.—Until recent years there has been a great deal of uncertainty about the linguistic classification of the tribes living north of the lower Pilcomayo River. The term "Lengua" (meaning tongue), applied by the Spaniards to the Indians who wore flat labrets and thus looked as if they had two tongues, was mainly responsible for the confusion.

Using the information obtained by Father Francisco Amancio González, Azara (1809, 2: 148–154) and Aguirre (1911, pp. 292–296) speak of a *Lengua* tribe living north of the lower Pilcomayo River in the region formerly occupied by the ancient *Guaicurú*. He describes it as a once powerful nation which, at the end of the 18th century, verged on extinction. According to Amancio González, the male population was reduced to 120 men who resided in a missionary station or had taken refuge among their former enemies, the *Pilagá*. Azara, however, states that in 1794 only 22 *Lengua* remained.

The *Lengua* were called *Cochaboth* by the *Enimagá*, who used the same name for themselves; the *Toba* called them *Cocoloth;* and the *Mascoi*, *Quiese-manapen* (*Quiesmagpipo*). They called themselves *Ouajadgè* (*Jugad fechy*). A *Lengua* vocabulary collected by Father Amancio González and preserved by Aguirre (1911, pp. 328–335) fails to show any linguistic affinity between the *Lengua-Cochaboth* and the modern *Lengua*, who speak a *Mascoian* dialect. On the other hand, the relationship between Aguirre's *Lengua*, *Guentusé*, and *Enimagá* is obvious, and had already been stressed by Amancio González and Azara. Until recent years, the *Lengua-Cochaboth*, the *Guentusé*, and the *Enimagá* were merged into a single isolated linguistic family called either *Enimagá* or *Cochaboth* (Rivet, 1924; W. Schmidt, 1926).

Hunt (1915) was the first to notice that modern *Macá* (*Towothli*) is closely related to ancient *Enimagá*, *Lengua*, and *Guentusé*, which are known through a short vocabulary collected by Father Francisco Amancio González and incorporated in Aguirre's diary, and through a few words published by Demersay (1860, p. 445). Some years later Max Schmidt (1936 b, 1937 b), unaware of Hunt's discovery, also compared Aguirre's word list with a more recent *Macá* vocabulary and established their close relationship. There is no doubt, therefore, that the modern *Macá* are the same as the ancient *Enimagá* (*Imacá*, *Ini-macá*, *Imaga*) or *Lengua-Cochaboth*.

The *Macá* language as known through Belaieff's vocabularies and texts (1931, 1934, 1940) presents close affinities both with *Ashluslay* and *Mataco* (Métraux, 1942). As a matter of fact, the Jesuits in the 18th century already classified the *Macá* (*Enimagá*) among the *Mataco* bands of the middle Pilcomayo River. (See Camaño y Bazán, 1931, p. 332.) Brinton also placed them in the *Mataco* family.

Macá (*Enimagá*, *Eni-macá*, *Ini-macá*, *Toothle*, *Towothli*, *Etaboslé*, *Cochaboth*).—The original home of these Indians was south of the Pilcomayo River, somewhat southeast of the *Guismay* and other *Mataco* groups. Driven from this territory by the *Toba* and *Pilagá* they settled in the upper Río Verde region on a river called Etacametguischi near lat. 24°24′ S.—probably the Río Negro or the Aguaray-guazú River. They were reputed to be fierce warriers who once kept the *Guaicurú* in subjection. According to Azara and Aguirre, at the end of the 18th century the *Macá* were considerably reduced in number as a result of constant warfare and epidemics, and therefore merged for a while with Aguirre's *Lengua*. Father Amancio González, who is supposed to have had a first-hand knowledge of these Indians, states that they were then divided in two camps which together contained only 100 able-bodied men; Azara says 150. These figures are probably wrong, as the modern *Macá* total about 5,000 persons. The present-day *Macá* are perhaps descendants of the combined *Enimagá*, *Guentusé*, and *Lengua*, who may have joined forces during the 19th century.

During the first half of the 18th century, the *Mbayá* had frequent encounters with the *Lengua-Enimagá* along their southern border. The *Enimagá* also sent raiding parties east of the Paraguay River. Unless these *Lengua-Enimagá* were *Mascoian* bands, these conflicts would indicate that originally the *Enimagá* extended farther to the north than they did at the end of the 18th century.

Modern *Macá* bands are found between the upper Río Confuso and the Río Negro. They are still numerous according to Belaieff. Until recently they had preserved their ancient ways of living, but under the impact of the Chaco war and of the occupation of their territory, their original culture is disintegrating very rapidly. Until 1932 they were at odds with the western *Pilagá* of the region of Salto Palmar.

Guentusé (*Quentusé*).—These Indians, neighbors of and an offshoot from the *Macá* (*Enimagá*), migrated with the latter from the Pilcomayo area to north of the Río Confuso. About 1794 they were divided into two bands and could muster about 300 warriors. Their name disappears during the 19th century, and it is probable that they merged with their *Macá* relatives.

THE TUPÍ-GUARANIAN LINGUISTIC FAMILY

Tapieté (*Tapii*, *Yanaygua*, *Yana*, *Nanaígua*).—The *Tapieté* inhabited the desert tracks stretching from the upper Pilcomayo River to the lower Parapití River, east of the foothills of the Andes. They had several camps on the northern side of the Pilcomayo River, between Taringui and Palo Marcado and between Galpón and Villamontes. In 1935, after the Chaco war, two *Tapieté* groups settled near Fort Oruro. The exact location of the bands of the Izozog region cannot be ascertained.

The *Tapieté*, a typical Chaco tribe, have a culture very similar to that of the *Mataco* and *Chorotí*, but, curiously they speak the *Guaraní* dialect of their *Chiriguano* neighbors. It is undoubtedly as a result of long contact with the *Chiriguano* that they adopted the language of the latter and discarded their own aboriginal tongue, though it is rumored that they still use it among themselves. Even in recent years, *Tapieté* bands were in the habit of settling for some time near a *Chiriguano* village to exchange their services for maize or other goods.

Lozano (1941, p. 81) refers to a *Mataco* subtribe, the *Mataco Coronados* (*Tonsured Matacos*) who, in addition to their own language, spoke *Guaraní*. These Indians were probably the ancestors of the modern *Tapieté*.

THE ARAWAKAN LINGUISTIC FAMILY

The northeastern and northwestern fringe of the Chaco was inhabited in pre-Columbian times by a large tribe of sedentary farmers who spoke an *Arawakan* dialect. They called themselves *Chaná*, but the Spaniards transcribed the name either as *Chaná* or *Chané*. Undoubtedly related to the *Paressí* and *Mojo*, they were the southernmost representatives of the great and widespread *Arawakan* linguistic family, whose center of diffusion probable lies north of the Amazon.

In Paraguay the name *Guaná* was substituted for *Chaná*, and the latter became restricted to the subtribe which lived opposite the mouth of the Apa River, and is better known as *Layaná*, a name given them by the *Mbayá*. (See Sánchez Labrador, 1910–17, 1:255–256.) To distinguish these two *Chané* branches, whose history and culture developed along different lines, the name *Chané* will be used for the western subtribes along the Andes, and *Guaná* for the eastern subtribes of the Paraguay Basin.

Long before the discovery of the Chaco by the Spaniards, the peaceful *Guaná* farmers had been subdued by the roving *Mbayá* and reduced to a condition of vassalage comparable, according to Schmidel (1903, p. 252), to that of German serfs. Each *Guaná* village was subordinate to a *Mbayá* band, which levied part of its harvest and exacted other services. In return, the vassals were protected by their suzerains against the attacks of other tribes. Thus the *Mbayá* and *Guaná* developed a close association or symbiosis, which ended only during the last century when both tribes began to disintegrate under White impact. The cultures of the *Mbayá* and *Guaná*, which at first were markedly different, had become identical. From the serfs the *Mbayá* learned to weave cotton,[13] to make a certain type of pottery, and later to give more attention to agriculture. Under *Mbayá* influence, the *Guaná* modified their social structure, adopted the horse, became more warlike, and, like their masters, acquired slaves. Both tribes, however, long retained certain basic tendencies of their former culture. The *Guaná* farmers always produced larger and better crops than those of the *Mbayá*, and they wove textiles of such good quality that they found a market for them in Neo-Brazilian cities. In general, they were more industrious and showed themselves more capable of assimilating White culture than the *Mbayá*. The *Guaná* migrated to the eastern side of the Paraguay River during the last half of the 18th century, probably about 1787, when the *Mbayá* seem to have abandoned the Chaco.

Azara's statement (1809, 2:86) that many *Guaná* followed their masters into the Province of Itati after 1673 appears unlikely, since Sánchez Labrador writes that in his time (1760–1767) all the *Guaná*, with the exception of some serfs, still lived in the Chaco.

In 1767 the subtribes of the *Guaná* occupied an area extending from lat. 21° S. to lat. 19° S. They were settled in seven villages, probably of considerable size judging from that of the *Layaná*, which contained 800 families but was said to have been smaller than the villages of the *Echoaladi*.

The *Guaná* settlements were as follows: (1) The *Layaná* (*Chaná*, *Guaná*) were opposite the mouth of the Apa (Corrientes) River, either on the Yacaré River or the Galván River; (2) the *Niguecactemic* (*Neguecaga temigii*, *Neguecatemigi*) were a branch of the *Layaná*, who had founded a separate village west of the Pão de Azucar, more or less in lat. 21°44′ S.; (3) the *Tereno* (*Terenoá*, *Etelena*) had two villages west of the *Layaná* in lat. 29° S.; (4) the *Echoaladi* (*Choarana*, *Chararana*), many of whom lived as serfs among the *Eyibogodegí*, were the largest subtribe and had two villages located northeast of the *Tereno* in lat. 21°30′ S.; and (5) the *Kinikinao* (*Equiniquinao*, *Quainaconas*) had their village somewhere between lat. 19° S. and lat. 20° S.

Thirty years later, according to Azara (1809, 2:87) and Aguirre (1911, pp. 305–09), the situation of the *Guaná* had undergone great changes: (1) The

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[13] "Las Guanas son las principales hilanderas y tegedoras de sus bellas mantas" (Aguirre, 1911, p. 314).

Layaná were settled at Lima, north of the Jejuy River, on the Aguaray-guazú River; population, 1,800:[14] (2) the *Niguecactemic* (*Neguecogatemigi, Niguicactemia, Negüicactemi*) still had their villages west of the Paraguay River (lat. 21°32′ S.); population, about 300: (3) some of the *Tereno* (*Ethelena, Etelenoe*) lived by the *Kinikinao* in the Chaco; others had moved east of the Paraguay River near a mountain chain called Echatiya (lat. 21° S.); population, 3,000: (4) the *Echoaladi* (*Hechoaladi, Charabana, Echenoana*) resided in the region of Caazapá, east of the Paraguay River, south of Villarrica (lat. 26°11′ S.); population, 1,800: (5) the *Kinikinao* (*Quiniquinao, Equiniquinao, Equiliquinao*) were split into two subgroups; one still lived in the Chaco at lat. 21°56′ S., and the other on the east side of the Paraguay River closely associated with the *Mbayá*.

In 1803 there were 600 *Guaná* in the mountainous region around Albuquerque. Though they lived separated from the *Mbayá*, the two tribes remained interdependent.

The *Guaná* were a numerous tribe, though they probably never totaled 18,000 or 30,000, as some 18th-century authors claim. In 1793 Aguirre (1911, p. 326) estimated that the whole tribe numbered 8,200; Azara gives the same figure.

In the middle of the 19th century, no *Guaná* tribe seems to have remained in the Chaco. All of them were concentrated in the region of Miranda and had broken their ties with the *Mbayá*.

About the middle of the last century the largest *Guaná* group was the *Tereno* of Miranda, whose population was estimated then at 3,000 to 4,000 (another source says 2,600 to 2,800). They lived in 4 to 6 villages. Bach, who visited them in the district of Miranda in 1896, puts their number—probably with some exaggeration—at 12,000 to 14,000. The same author lists the names of 7 of their villages, the population of which ranged from 257 to 379. In 1935 there remained 11 *Tereno* villages near Miranda.

About 1850 the *Kinikinao*, totaling 700 to 1,000, had 2 villages between Miranda and Albuquerque. At the end of the 19th century there were still about 100 *Kinikinao* scattered in the region of Albuquerque, west of the Paraguay River.

During the 19th century, the *Echoaladi* (*Chualas*) were concentrated around Albuquerque, though a few could be found near Miranda. A village near Albuquerque visited by Castelnau (1850–59, 2: 396) consisted of 65 houses. An official document of 1848 sets their total number at 200, plus a small group that had settled near Cuyabá.

One hundred years ago the *Layaná*, numbering about 300, lived in 3 or 4 villages near Miranda.[15]

The first missionary to enter the land of the *Guaná* was Pedro Romero, who was killed there. Father Sánchez Labrador visited the tribe in 1761 and, in 1766, Father Manuel Duran founded the *Layaná* mission of San Juan Nepomuceno, on the western side of the Paraguay River, opposite the mouth of the Apa (Corrientes) River. After the expulsion of the Jesuits the following year, the Franciscans transferred the mission across the river, but did not succeed in keeping the Indians—mostly *Layaná*—in it more than 2 years. In 1791 a new mission was established on the Tacuatí River, on the middle course of the Ypané River, but it never prospered.

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[14] In 1788, 500 *Guaná* settled at Tacuatí, on the Ypané River, under a priest, but were soon attacked and decimated by the Creoles. Another *Guaná* group that lived near Fuerte Olimpo migrated to the vicinity of Concepción, on the Laguna de Aquidabanigy, where Rengger (1835, p. 335) visited them in 1821. Later, these Indians, who had placed themselves under Paraguayan protection, were exterminated by the Mestizos.

[15] Aguirre (1911, p. 309) gives the following figures for only the male population at the end of the 18th century: *Tereno,* 1,000; *Layaná,* 500; *Echoaladi,* 1,000; *Kinikinao,* 600; *Neguecogatemi,* 200. These figures were communicated to Aguirre by a Franciscan missionary.

Protestant missionaries of the Inland South America Missionary Union have been active among the *Tereno* since 1913. From the accounts of one of its missionaries, Mr. Hay, it appears that the Indians, though thoroughly adjusted to the Neo-Brazilian environment, have remained surprisingly faithful to many *Arawak* and *Mbayá* traditions and customs.

THE ZAMUCOAN LINGUISTIC FAMILY

At the beginning of the 18th century, the plains south of the Province of Chiquitos were occupied by Indians who spoke dialects of the family called *Zamucoan* after one of its subgroups. Hervás (1800–1805, 1: 162–164) classifies the *Zamucoan* dialects as follows:

(1) *Zamuco* proper spoken by the *Zamuco* and the *Zatieño* (*Satieño*, *Ibiraya*).

(2) *Caipotorade* spoken by the *Caipotorade*, *Tunacho* (*Tunaco*), *Imono*, and *Timinaba* (undoubtedly the modern *Tumerehã*).

(3) *Morotoco* (the modern *Moro*) spoken by the *Morotoco* (*Coroino*), *Tomoeno*, *Cucurare* (*Cucurate*, *Cucutade*, *Cuculado*), *Panana*, *Carerá*, and *Ororebate*.

(4) *Ugaraño*. Some Jesuits placed *Ugaraño* in the same subgroups as *Zamuco* proper.

To these dialects we must add the *Tapii* (?), *Chamacoco*, *Tsirakua*, *Guarañoca*, and probably *Poturero*.

History of the Zamucoan tribes.—Several authors have identified the *Samocosi* or *Tamacosi*, whose name appears in the accounts of the discovery of the *Chiquito*, with the *Zamuco* or *Chamacoco*, but the 16th-century *Tamacosi* lived on the Río Grande (Guapay) not far from the modern city of Santa Cruz de la Sierra, and neither their location nor the few data on their culture suggest any connection with the ancient *Zamuco*.

The Indians of the *Zamucoan* family entered history in 1711 when the *Morotoco* were discovered by Father Juan Bautista de Zea and were placed in the mission of San José. In 1717 they were moved to the newly founded mission of San Juan Bautista. Father Zea next visited the *Cucurare* but, except for a few families, they refused to follow the example of the *Morotoco*. In 1716 he sent a party of *Chiquito* neophytes to "tame" the *Carerá*, a *Zamucoan* tribe closely related but hostile to the *Morotoco*. The *Carerá*, who offered armed resistance to the intruding *Chiquito*, were obliged to flee after suffering heavy losses. They were never again found nor was their name mentioned in later Jesuit documents. In 1717 Father Zea at last reached the *Zamuco* proper, who received him in a friendly manner and agreed to form a mission. But in 1719 when Father Miguel de Yegros tried to open the mission in the land of the *Cucurare*, the *Zamuco* frustrated his plan by migrating from the site he had chosen and by murdering Br. Alberto Moreno, who had followed them. For 5 more years the Jesuits made fruitless efforts to start a mission among them.

Finally, in 1723, a *Zamuco* band, fleeing from the *Ugaraño*, came with a *Cucurare* group to seek refuge in the mission of San Juan. Later in the same year, Father Augustin Castañares brought them back to their own country, where he founded the mission of San Ignacio, probably at lat. 20°55′ S. and long. 59°42′ W. In 1726 the *Zamuco* and *Cucurare*, who formed this mission, were transferred to San José with the hope that, surrounded by Christianized *Chiquito*, they would forget their mutual enmities. When peace was reestablished, the *Zamuco* and *Cucurare* were allowed to return to their mission and were placed under the care of Father Castañares. In 1738 members of five tribes were concentrated in San Ignacio—the *Zamuco* proper, the *Cucurare*, the *Tapii*[16] (*Tapio*), the *Zatieño* (*Satieño*), and the *Ugaraño*—all of whom spoke closely related dialects (Chomé, 1819, p. 349). In this mission Father Ignace Chomé wrote a glossary and a grammar of the *Zamuco* language.[17] The Jesuits desired at that time to make San Ignacio an outpost for the exploration and spiritual conquest of the unknown regions of the Chaco—a hope which never materialized.

About 1750 renewed intertribal feuds caused the neophytes to desert the mission of San Ignacio and return to San Juan. In 1751 a new mission of San Ignacio was built north of San Miguel for the *Ugaraño* and some converts from San Juan Bautista.

At the end of the Jesuit period there were *Morotoco*, *Cucurare*, and *Tomoeno* Indians in the mission of San Juan Bautista. In 1831 the bulk of the population was formed by *Morotoco* and *Chiquito* though some other tribes were still represented by a few individuals.

The mission of Santiago, established in 1754, contained, among other Indians (Hervás mentions the *Ugaraño* and *Tunacho*), 300 *Caipoterade*[18] whom Father Gaspar Troncoso rounded up in 1762 with the aid of a party of Christianized Indians. At the time of D'Orbigny's visit in 1831 the population of Santiago consisted only of *Guarañoca*, *Tapii*, and some *Chiquito*.

The *Tunaca* (*Tunaco*, *Tunacho*) lived to the southeast of the mission of Santiago. In 1757 Father Narciso Patzi established contact with them and tried by distributing presents to induce them to form a mission, but the *Tunaca* remained hostile and even attacked the missionary's party. Only in 1759 did Father Patzi succeed in collecting about 200 *Tunaca*, for whom Father Antonio Guasp founded the mission of Corazón de Jesús. In 1767 the *Tunaca* shared this mission with *Zatieño*, *Zamuco* proper, *Poturero*, *Otuquè*, and some *Chiquito*, all of whom, with the exception of the *Zatieño* and *Tunaca*, still retained their tribal consciousness when D'Orbigny visited them in 1832.

The *Imono* were never converted by the Jesuits. In 1763 this peaceful tribe of about 300 people was destroyed by the *Mbayá*, who killed the adults and retained the children as slaves (Muriel, 1918, p. 225).

By settling the *Zamuco* in the Province of Chiquitos, the Jesuits not only aimed to remove them from the inroads of the *Mbayá* but to hasten their assimilation by the *Chiquito*, who formed the predominant population of that region. The missionaries strove to spread the *Chiquito* language among the *Zamuco* in the missions, but evidently they were only partially successful for *Zamuco* was still spoken there in the first half of the 19th century. Today the descendants of the missionized *Zamuco* cannot be distinguished from the acculturated *Chiquito.*

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[16] Hervás (1800–1805, 1 : 160) classifies the *Tapii* among the *Chiquitoan*-speaking Indians. The *Tapii* whom D'Orbigny (1835–47, 4 : 273) found in the mission of Santiago had forgotten their original language, and he is inclined to regard them as an *Otuquèan* tribe.

[17] Chomé's manuscript grammar of the *Zamuco* language was discovered by K. Von den Steinen, and is now in Dr. Paul Rivet's possession.

[18] Muriel (1918, p. 206) remarks that the *Caipoterade* bands split into their component families during the dry season, but that they gathered again when the algarroba pods were ripe or when the rivers were full of fish.

When the paternalistic Jesuit regime was replaced by the rule of corrupt governors and curates who mistreated and looted the Indians, the once flourishing missions fell into a complete decadence from which they have never recovered.

In spite of their persistent and the systematic efforts, the Jesuits lacked time to subjugate all the *Zamucoan* tribes. Even when the bulk of the nation had been settled in the missions, some bands retained their independence. Among these, were the *Moro,* who undoubtedly are the remnants of the ancient *Morotoco,* and the *Guarañoca.* The Jesuits now and then allude to the *Timiniha* (*Timiniba, Timinaba*), a *Zamucoan* tribe, which they were unable to bring under their rule. This name probably was applied to the whole *Chamacoco* tribe rather than to the *Tumerehã* subtribe (see p. 244). Texts concerning the history of the *Zamucoan* tribes have been collected by Baldus (1931 a, pp. 154–202; 1932, pp. 361–416).

In 1723 Fernández (1895, 2:244) estimated the number of the *Zamuco* proper at 1,200, and thought the *Ugaraño* about as numerous. In 1831 D'Orbigny (1835–47, 4:254) put the *Zamuco* population in the missions of Chiquitos at 1,250 and the number of the wild *Zamuco* near the Salinas de Santiago and on the Otuquis River at about 1,000.

Guarañoca.—The original habitat of the *Guarañoca* lay in the southern foothills of the Santiago Range. In the first half of the 18th century, the Jesuits made great efforts to settle them in their missions but the warlike disposition and errant life of these Indians prevented the conversion of the whole tribe. Those who accepted the Jesuit rule constituted, together with the *Tapii* and some *Chiquito*, the native population of the mission of Santiago de Chiquitos.

The *Guarañoca* who remained pagan became bitter enemies of the Whites. For many years their continuous attacks hampered the exploitation of the large salt deposits south of Santiago. In recent years these Indians have constantly raided ranches and farms near San José, Santiago, Santo Corazón, and San Rafael. According to a native informant, they are now split into several groups: one lives 12 or 15 leagues from Santiago; another, the so-called *Salineros,* near the Salinas de Santiago and San José; another, the *Migueleños,* near the headwaters of the San Miguel River; a fourth group in the Monte Grande; and a band which roams near the Paraguay River.

All these groups speak closely related dialects, maintain mutually friendly relations, and barter salt for other goods, chiefly pottery. One small band near the Tubaca and Aguas Calientes Rivers is, however, hostile to the other *Guarañoca.* The *Guarañoca* who formerly lived in the Pampa de San Miguel have migrated to the campos of Santo Corazón, near San Rafael. D'Orbigny gives a good description of the *Guarañoca* dances in the mission of Santiago. Some ethnographic data on these Indians were published recently by Father Oefner (1942), who obtained his information from a few neophytes of the modern mission of Santiago de Chiquitos. The *Guarañoca* culture seems to resemble very closely that of the *Tsirakua* and *Moro,* who possibly are *Guarañoca* bands or subgroups. According to Loukotka, however, the few known *Guarañoca* words show closer analogies with ancient *Zamuco* than do the *Tsirakua* and *Chamacoco* word lists. Until more and better linguistic material is available, the question must remain undecided.

Moro.—The modern *Moro*, who may be related to the *Morotoco* of the Jesuit mission of San Juan Bautista, are still unknown but for vague references and a few artifacts collected in their abandoned camps. They roam in the unexplored plain of the northern Chaco, south of Chiquitos and north of the inland railway from Puerto Sastre. They fight occasional skirmishes with the *Tumerehã*, and are hostile to other Indians and Whites. Possibly they are to be identified with the *Guarañoca* of the Salinas de Santiago and San José.

Chamacoco.—When the *Mbayá* and the *Guaná* left the Chaco to settle in Matto Grosso, the territory which they abandoned was occupied by the *Chamacoco*, who are mentioned for the first time when they appeared near Fuerte Olimpo in 1802. During the 19th century, the *Chamacoco* were constantly raided by the *Mbayá*, who enslaved them or forced them to sell their children. In 1803, the *Mbayá* of the region of Coimbra had 400 *Chamacoco* slaves.

Modern *Chamacoco* are divided into three subtribes: *Hório*, *Ebidoso*, and *Tumerehã*. The *Hório* (Frič's *Ishira*) lived in the region of Bahía Nega and Puerto Mihanovitch on the Paraguay River. In 1928 they numbered 120 to 180 people.

The *Ebidoso* resided in the vicinity of Puerto Voluntad, and were reckoned at 175 in 1928.

Although the *Ebidoso* and *Hório* separated only recently, both subtribes are now hostile to each other. The Paraguayans often call them *Chamacocos mansos* (*Tame Chamacoco*) because they were the first of the tribe who, in 1885, entered into friendly relationship with the Whites.

The *Tumerehã* (*Timinaba; Timiniha* on Jolis' map) form the southern group of the *Chamacoco*, who separated from the two other subtribes 50 years ago, as the result, it is said, of a feud over a violated taboo. Their habitat is north of the railway which runs from Puerto Sastre westward into the Chaco. Because they keep aloof from the Whites, they are often called *Chamacocos bravos* (*Wild Chamacoco*) though they are really more peaceful than their northern neighbors. Continuous warfare existed for a long time between the *Tumerehã* and the other *Chamacoco* groups. In 1928 the *Tumerehã* are said to have totaled about 1,500 (301 families).

Tsirakua (*Siracua*, *Empelota*).—The *Tsirakua*, a mysterious tribe that ranges north and east of the Izozog marshes, may be identical with the *Moro* or a closely related tribe. The only information regarding them was obtained through the *Tapieté*, who waged a bitter war against them and now and then captured a few. A short list of words taken from a *Tsirakua* woman by Nordenskiöld (1912, p. 324) shows close relationship with the *Zamuco*. The *Tsirakua*, like the *Moro*, may be *Guarañoca* bands.

Poturero (*Potorera*).—The *Poturero* (Azara's *Ninaguila* or *Ninaquiguila*) were a fairly numerous tribe that lived in the forests of the northern Chaco between lats. 18° and 19° S. They were peaceful farmers whose small villages were scattered south of the mission of Santiago, on the southern side of the San Raphael and Aguas Calientes Rivers. Some *Poturero* groups were settled in the mission of Santo Corazón and perhaps in San Juan Bautista.

Cardús (1886, p. 278) refers to them as a tribe still existing in the second half of the 19th century. He states that they had escaped from the above-mentioned missions and lived along the Tucabaca River, between Santiago and Corumbá.

UNIDENTIFIED INDIAN TRIBES ON THE UPPER PARAGUAY

The Indians inhabiting the district around Puerto de los Reyes, lat. 17°58′ S., in the middle of the 16th century, were the *Sacoci*, *Socorino* (*Surucusi*), *Xaquete* or *Xaquese*, and the *Chané*.

The *Chané* were apparently newcomers in the region. They told the Spaniards that they had followed the Alejo García expedition on its way back from the border of the *Inca* Empire, and then had settled in two villages near the *Sacoci*.

All these tribes were agriculturists, but unlike most tropical Indians, the men planted and sowed whereas the women helped only with the harvesting. Their main vegetable foods were manioc of several varieties, maize, sweet potatoes, peanuts, and mbocajá palm fruits. They raised ducks and hens which they shut at night in tightly closed chicken houses for protection against vampire bats.

Men and women usually went naked, but had cotton cloaks, which were stored in large jars sealed with clay to protect them from crickets. Men wore large wooden disks in the earlobes—hence the name *Orejones* (Big Ears) often given to this tribe—and women wore "a grey stone of crystal, thick and long as a finger" in the lower lip. They are said to have worshiped wooden idols.

The *Artan* (*Artanes*) lived a day upstream from Puerto de los Reyes. They were agriculturists, but sowed little because most of their land was periodically inundated or covered with arid sand. They went naked. Men inserted into their lower lip the round husk of a fruit (?) and women tattooed their faces with the tip of a stingray tail.

The *Yacaré* also inhabited the Paraguay River banks, 36 leagues upstream from Puerto de los Reyes. They were fishermen and hunters.

The *Perovosan* (*Perobozanes*) are placed by our sources north of the *Artan*, south of the *Xaraye*.

The few ethnographical details on the *Xaraye* (*Xarayes*) preclude their inclusion within the Chaco culture area. They will be described with the *Chiquitoan* tribes in Volume 3.

CULTURE

SUBSISTENCE ACTIVITIES

Collecting wild foods.—The thorny and forbidding Chaco bush (pls. 45, 46) has greater wealth in trees and other plants with subsistence value to man than the tropical forest. Pod-bearing algarroba (*Prosopis alba* and *P. nigra*) and tuscas (*Acacia moniliformis*), fruit trees like the chañar (*Gourliea decorticans*) and the mistol (*Zizyphus mistol*), which are all common representatives of the Chaco xerophytic flora, supply the natives with abundant food in season. Innumerable palm trees, covering extensive areas in the marshy tracts along the rivers, are of equal economic value. The forests once yielded considerable game, and the rivers still hold countless fish.

The seasonal yield of certain plant species produces a varied diet, and the irregular distribution of certain plants and of several animal species induces a limited nomadism, which, however, does not involve the migration of large bands, but rather the dispersal of small family groups, which scatter in order to procure their livelihood. The social and ceremonial life is deeply affected by the momentary abundance of a particular food. For example, during the fishing season, when there is always a large concentration of people along the rivers, boundary conflicts are frequent. The algarroba harvest, on the other hand, is a period of continual rejoicing and visiting. In winter, the social density is at its lowest level, and every family trudges across the bush in search of a precarious subsistence.

A diet calendar can be established for the Pilcomayo Indians on the basis of seasonal variations in foods. Since the beginning of this century, however, the annual cycle has been altered by a new and important factor in the native economy: during the lean winter months, which formerly were a time of scarcity and even of famine, the younger people migrate to the sugarcane fields of Jujuy and Salta, where they work as peons.

From November to January and sometimes until February, the Pilcomayo Indians feast on algarroba, which is consumed mainly in the form of beer, and on the nourishing fruits of the chañar and mistol.

At the end of summer, the beans of the poroto del monte (*Capparis retusa*), tasi (*Morrenia odorata*), and Barbary figs (tunas) are foremost in their bill of fare. Farming tribes harvest their crops during the same period, and add maize, pumpkins, and watermelons to their diet of wild plants. Toward the end of the rainy season, women are kept busy spreading fruits and pods on skins and mats to dry for the winter months ahead.

April, May, and the first half of June, when shoals of fish ascend the Pilcomayo, are months of plenty. The daily catch is sometimes so big that the surplus can be smoked and stored for many days or traded to inland tribes for maize and other crops. The Indians regard the fishing season as one of fatness and health. It is unquestionable that they are then best nourished. In June and July, though the rivers are low, a few fish can still be had and tusca pods and a few tasi are still harvested.

During August[19] and September, the leanest months of the year, the Indians eat tusca and their stores of sachalimona or naranja del monte (*Capparis speciosa*) and sachasandia fruits (*Capparis salicifolia*). They beat the bush to gather various wild Cucurbitaceae, tubers, and some species of Bromelia with fleshy rhizomes. The most palatable food of this season is a creeper, tripa de zorro (probably *Phaseolus caracalla*), which, properly cured, tastes like chestnuts.[20] Game, though in recent times an almost negligible source of food, formerly supplemented the vegetable diet.

A similar economic schedule may be postulated for the northern Chaco tribes, about whom there is less information.

Like other Chaco tribes, the *Mbayá* of the northern Chaco and of southern Matto Grosso collected algarroba pods, but their staples among wild plants were the terminal shoot (palmito), the fruits and the pith of several palm species, mainly the mbocayá palm (*Acrocomia* sp.) and the yatái-guazú (*Cocos paraguayensis*). Large *Mbayá* households would settle in a grove of mbocayá palms and exploit it for a month or more until they had exhausted it, then return to the main camp with provisions of flour and roasted shoots (palmitos). Sánchez Labrador (1910–17, 1:162) tells us that the *Mbayá* families, assembled at the mission of Belen on the Ypané River, destroyed all the palm trees within 6 miles of the mission in 3 or 4 weeks.

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[19] During my visit to the *Mataco* of the Bermejo River in 1939, in August they still ate anco (*Cucurbita moschata*) and some algarroba pods.

[20] The *Mataco* collect wild roots and tubers during the lean winter months. Among the roots are those of the oláx (*Cissus palmata*), which grow in marshy grounds and have to be boiled in three different waters; of the newûk creeper, which look like manioc but are unsavory; and those of the na'pét cactus, which are boiled in ashes. Tubers include katsi'wôk (*Echinodorus grandiflorus*), an aquatic plant which needs only slight boiling; si'nyáx, which are very bitter and therefore are roasted, dried, and then boiled for a whole day; moʟmoʟ (*Solanum meloncillo*); atsixwó, which are first roasted and then boiled; and nekwitáx (*Merremia aegyptica*).

The *Mataco* also eat iste-Loi berries (*Physalis viscosa*), and the fruits of sān'yâ (*Araujia plumosa*); katsunʟi (*Philibertia gracilis*); kitsawk (*Cissus sicyoides*), which are boiled and roasted; tsotna-katos ("deer-teats"), which are baked in ashes; and axwatax-Loi, which resemble the tasi fruits and the fruits of the newûk creeper.

The economic value of palm trees for the *Mbayá* can be well illustrated by the various advantages which these Indians derived from the mbocayá palm (*Acrocomia* sp., probably *totai*): the fruits, seeds, shoots, and pith were eaten; the sap was made into an alcoholic beverage; grubs, which grew in the decayed trunks, were greatly relished as a food; and ropes and halters were made from the leaves and needles from the thorns. The terminal shoot (palmito) of the caranday palm is also an important food for the Pilcomayo tribes. Modern Indians in that region, however, do not seem to consume the starch of the palm to the same extent that their ancestors did. The *Mocoví* broiled the palmito and pounded it into a flour, which they ate as a mush. They were also fond of the fruit kernels, which they consumed raw or roasted (Kobler, 1870, p. 235).

The main vegetable foods of the *Chamacoco* are algarroba pods, shoots of the caranday palm (*Copernicia cerifera*), the pith of the carandaipé palm, the bases of the caraguatá leaves, the tubers of an aquatic plant, and a wild "manioc" (Baldus, 1931 b, p. 26). The *Guarañoca* collect paquio, chuchio, piñas silvestres, pitajaya, algarroba pods, and the fruits of the totaï palm (Oefner, 1942, p. 103).

Rice (*Oryza perennis*), which grows wild in the marshy tracts of the upper Paraguay River, was consumed on a large scale by the river Indians, the *Payaguá* and *Guachí*, and even by the *Mbayá*, who obtained it from these tribes by barter. The *Payaguá* and *Guachí* harvested the rice by shaking the grains into their canoes, in a way similar to that of the *Menomini* of Wisconsin in harvesting wild rice. They ate it without removing the hull (Sánchez Labrador, 1910–17, 1:185).

When hard-pressed by hunger, the *Mocoví* ate the boiled roots of the umbú tree (Kobler, 1870, p. 223).

Throughout the Chaco, wild fruits and tubers are collected by women who search the bush, equipped with a digging stick, a wooden hook fastened to a long pole to pull down high branches, and large caraguatá bags to carry home the harvest.

The digging stick is made of hard wood (often of palo mataco, *Achatocarpus praecox*) and as a rule, has a spatulated or beveled distal end. The digging stick of the *Toba* and *Mataco* is about 6 feet (1.8 m.) long and of considerable weight. The same tribes also use shorter, thinner sticks with a spatulated head, which can be carried easily when they wander in the forest and which serve to open palm trunks and uproot caraguatá plants. The *Abipón* and *Mocoví* digging stick was about 4 feet (1.3 m.) long, broad at each end but slender in the middle (Dobrizhoffer, 1784, 2: 122). *Chamacoco* women have digging sticks shaped like paddles or clubs with sharp edges, a form appropriate for extracting the caranday terminal shoots (palmitos). To uproot caraguatá leaves, Chaco women used forked sticks.

Before eating the tunas (Barbary figs), which are covered with infinitesimal thorns, the women shake the fruit together in elongated nets (pl. 60, *b*) to rub off the dangerous fuzz.

Chaco Indians are eager honey-gatherers. Bees and honey-producing wasps are numerous in the Chaco. The *Mataco* know of 16 different kinds of honey. Some species of bees or wasps make spherical hives hanging from trees; others live in trees or in underground holes. When wandering in the bush, the men attentively follow the flight of each bee, hoping to discover its nest. The *Abipón* explained their habit of plucking their eyelashes as a measure to improve their sight when looking for bees. To reach honey in tree cavities, the Indians enlarge the hole with their axes, a lengthly operation when they had only stone axes. Unless the cavity is large enough to receive a vessel, the Indians dip a coarse fabric of caraguatá fibers into the liquid honey and wring it in a skin bag. The Chaco Indians despoil a hive entirely and, unlike some Brazilian tribes, leave no combs for the bees' return. The larvae in the combs are eaten with the honey or, preferably, are roasted. Honey is always stored in a small bag made of the entire skin of a small rodent with the hair inside. The *Guaná* are said to stupefy the bees with the smoke of a Datura plant, which they blow into the cavity before removing the combs.

The clouds of locusts that cross the Chaco sometimes are an important food resource. The *Mocoví* drove the insects toward a large straw fire which scorched them, or collected them by the hundreds and roasted them over a fire. Roasted or dried locusts are often pounded in a mortar and boiled in water or fried in fish oil (*Mocoví*, *Lengua*, and others). The *Mocoví* stored locusts which they could not eat on the spot; they also made a mush of locust eggs.

Water supply.—Water is scarce throughout large regions of the Chaco. In the dry season its lack may become one of the most serious problems of survival. The ancient *Lule* and *Vilela* who lived south of the Bermejo River, bored deep pits in which they stored jars full of water for the dry season, or dug large cisterns.[21] The modern *Lengua* have wells 15 to 20 feet (4.5 to 6.1 m.) deep and 2½ feet (0.75 m.) in diameter. These are so made that a man can go down by footholds on either side.

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[21] Camaño y Bazán (1931, p. 331) says: "Suplían la falta de ríos y manantiales perenes con el agua llovedisa que se recoge en ciertos bajíos de tierra, los cuales cavaban y profundaban más, para que el agua recogida en las lluvias durase por más tiempo. Mas como aun esta diligencia no bastaba para que tuviesen agua por todo el año, por ser grandes los ardores del sol, y muy seca y sedienta la tierra, guardaban en hoyos profundos multitud de tinajas grandes llenas de agua para el verano. Guardaban tambien sandias. Serviales asimismo de bebidas el jugo de unas raices grandes manera de botijas, que llama uagali, tanto mas jugosas o aguosas que las sandias."

When in extreme need, the Chaco Indians drink the water that collects in the hollow axils of caraguatá leaves or dig up the bulky tuber of the cipoy (*Jacaratia hassleriana;* in *Mataco*, iletsax).

Farming.—Agriculture is known to nearly all Chaco tribes. The few exceptions are explained by an unfavorable environment rather than by cultural reasons, though in some cases the adoption of the horse brought the temporary abandonment of farming.

The ancient *Zamuco* were farmers and so are their descendants, the *Moro* and *Guarañoca*, who cultivate maize, beans, gourds, manioc, and cotton (?).[22] On the other hand, the closely related *Chamacoco* are almost exclusively collectors and hunters, though even they are not entirely ignorant of the principles of agriculture, for they plant and carefully tend the gourds necessary for making rattles (Baldus, 1931 a, p. 32). Here the absence of systematic agriculture must be attributed to the nature of the land, for the *Tumerehã*, a subgroup of the same tribe who occupy a more favorable environment, raise a few crops and cultivate an imported reed, the caña de Castilla (*Arundo donax*), for arrow shafts. The *Payaguá,* who formerly lived on the water, became agriculturists many years after they had settled in Asunción. The first attempt at agriculture was the sowing of a few beans in 1824.

After the *Abipón*, *Mocoví*, and *Mbayá* received the horse they found themselves in a better position to live from hand to mouth and gave up whatever little farming they might have practiced in the past. However, the *Abipón* and *Mocoví* obtained crop foods through loot and the *Mbayá* through tribute from their farming vassals, the *Arawakan*-speaking *Guaná.* At the end of the 18th century, whatever agriculture was practiced by the *Mbayá* was in the hands of the *Guaná* slaves who lived among them. In the following century, the *Mbayá* themselves became true farmers, when the Whites forced them to lead a more sedentary life. It is quite likely that agriculture played the same part in the pre-European economy of these tribes that it did among other Chaco Indians who did not adopt the horse.

The best farmers of the Chaco were the *Arawakan*-speaking *Guaná* of the north, who depended mainly on the yield of their large plantations. Every year after they had tilled their fields and planted their crops, the *Guaná* moved to the banks of the Paraguay River to hunt and fish until harvest time. The *Lengua*, who can find only small and scattered patches suitable for cultivation, raise few crops, but their neighbors, the *Ashluslay* (*Chulupí*) are better off, thanks to a more favorable habitat. To the *Pilagá*, whose lands are flooded every year, agriculture is more a sport than a profitable pursuit. They merely grow a few pumpkins, and some maize and tobacco.

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[22] The ancient *Zamuco* also planted peanuts.

Compared to the bush *Mataco* (*Matacos montaraces*) and the *Toba*, the river *Mataco* may be considered proficient gardeners.

The ancient *Gauchí* of the Miranda River planted their crops on the flooded terrains along the river. As soon as the river receded, they set fire to the grass and started to till the soil to grow maize, gourds, tobacco, and sweet potatoes. (See Aguirre, 1911, p. 322.)

Dryness of the soil, lack of chemicals, and excessive floods are not the only factors handicapping farming in large parts of the Chaco; crops are also threatened by blights, locusts, tordo birds, parakeets, peccaries, and by cattle and other domesticated animals. The building of a thorn hedge around his field is the heaviest task which befalls the *Mataco* farmer. These fences, heaped up with great effort, do not last long and must be replenished twice a year. When thorn trees or brush can no longer be obtained within convenient distance, the Indians prefer to abandon the old clearing and to open a new one in some other site. In the Spanish jargon of the Chaco, "field" is synonymous with "enclosure" (cerco).

Some fields of the *Mataco* in the upper Pilcomayo River region measure about 10 acres (4 hectares); this is also the size of the average *Kaskihá* field. On the other hand, the *Pilagá* have patches covering only a few square yards (meters). *Sanapaná* plantations rarely exceed 5 or 8 acres (2 or 3 hectares). They are generally located within a thick forest and are reached by a winding path. The owner first destroys the low brush and then fells all trees except those which are too tall to shade the crops. Even after they have moved to a new site, the *Lengua*, and probably most of the Chaco Indians, return from time to time to their old gardens to carry off the produce.

Most Chaco Indians are careless about the condition of their fields and plant the different crops haphazardly in scattered patches. Among the *Kaskihá*, however, old people are said to weed the gardens.

The main crops raised in the Chaco are: Maize, sweet manioc, beans (*Phaseolus* sp.), pumpkins (*Cucurbita maxima*), anco (*Cucurbita moschata*), watermelons, gourds (*Angaité*, *Sanapaná*), sweet potatoes, tobacco, cotton, sorghum, and sugarcane. There are local variations, especially in the northern Chaco where the Indians are in contact with tropical agriculturists. The modern *Guaná* cultivate, in addition to the plants listed above, bitter manioc, cara, several of the Cucurbitaceae, rice, papayas, a species of *Cassia*, an aroid, the tubers of which are boiled in several waters, and urucú. Pumpkins are the preferred crop of the *Mataco*, and maize of the *Ashluslay;* sweet potatoes are the staple of the *Kaskihá*. The *Lengua* raise pumpkins, sweet potatoes, sweet manioc, tobacco, and a little maize.

Clearing the brush, fence construction, and occasional weeding are everywhere men's activities. There is some doubt as to which sex tills and sows. *Mataco* and *Pilagá* men till the fields and plant the crops;

women harvest. According to Nordenskiöld (1912, p. 94), among the *Chorotí* and *Ashluslay* both men and women cooperate in all agricultural work. The care of the plantation is in the men's hands among the *Lengua*, *Kaskihá*, and *Guaná.*

The main agricultural implement is either a digging stick (fig. 37, *c*) or a wooden paddle-shaped spade (*Mataco*, *Chorotí*, *Ashluslay*, *Guarañoca*) carved from a single piece of wood and, occasionally, provided with a crotch at the proximal end (fig. 35, *a*). The shovel of the *Guaná*, like that of the *Chiriguano* and of the Andean Indians of southern Bolivia and Atacama, consisted of a wooden blade (also a scapula) lashed to a handle 5 feet (1.5 m.) long. When shoveling, a *Guaná* sat on the ground and turned up the soil within reach, then moved to another spot[23] (Sánchez Labrador, 1910–17, 2:292).

The *Mataco* maintain guards in their fields to scare off the swarms of parrots and other birds which plunder the ripe crops, or lay snares to catch them.

When a crop has been destroyed by blight, the *Lengua* consult a shaman who himself brings, or who sends by someone else, charms to drive away the evil and to restore fertility to the soil. Unfruitful plants are spat upon to make them bear again (Grubb, 1904, p. 81).

Fishing.—During 2 or 3 months each year, fishing is the principal economic activity and fish the staple food of those tribes that have access to large rivers, such as the Pilcomayo and the Bermejo. Even the equestrian *Mbayá* spent several weeks along the Paraguay River living exclusively on fish. For this period, they built flimsy shelters along the water so situated that, in case of danger, fire or smoke signals could be seen by everyone.

Even inland bush groups try to settle on the river banks during the fishing season notwithstanding the peril of poaching on the territory of other tribes. To avoid open warfare, agreements are sometimes reached between the river and bush people. Thus, the *Ashluslay*, when at peace with the *Pilagá*, lend them their fishweirs. Many inland tribes trade maize or other foods for dried or smoked fish.

Collective fishing is common among the *Pilagá*, *Ashluslay*, and *Mataco* of the Pilcomayo River, but on the Bermejo River it is more often an individual activity. There is scant discipline in these communal drives, and everyone stops fishing at his own will.

In the swampy regions near the mouth of the Pilcomayo River, fish are often so thick in the stagnant pools that they can be dipped out by hand. The *Lengua* catch fish in the same manner in small streams which they dam when the annual flood recedes. Both the *Ashluslay* and the *Lengua* fish in low waters with conical wicker baskets, about 2 feet (0.6 m.) high and open at the base and apex. They drop them over the fish, which they seize with their hands through the hole at the top. The same Indians set wickerwork fish traps in larger streams.

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[23] "El modo que tienen en labrar la tierra es singular. Con las palas arriba dichas mueven la tierra y desherban, no al modo que lo hacen los Españoles, sino sentados. Enhastan las palas en unos cabos largos de vara y media: siéntase el Chaná, y trabaja cuanto alcanza la pala; así, mudando sitios, limpia y compone el terreno de su sementera" (Sánchez Labrador, 1910–17, 1:291–292).

There is no record of native hooks other than those of the *Lengua* and *Kaskihá* (Hassler, 1894, p. 333), which are said to have been made of bone or wood. The *Lengua* angle with very short lines from their canoes or as they stand in the water. The *Mataco*, it is said, employ large wooden hooks for catching caimans. Angling with iron hooks is especially rewarding when the rivers are high and fish come to the banks to eat ant larvae and other insects which fall into the water near the crumbling banks. The Indians, however, often lose their catch to the palometa fish, which tears it or cuts the line.

Net fishing, by far the most profitable method, is practiced during the dry season when rivers can be forded and dams built, and when shoals of fish migrate upstream.

Nets are of two types: (1) Those with a frame of two long poles which open and close like scissors; and (2) those mounted on two bent flexible rods attached to each other at both ends (pl. 48).

When word comes that fish are ascending the river, the Indians start to construct a fence of branches in the water parallel or diagonal to the shore.[24] At night a group of fishermen, holding nets of the first type, bar the downstream end of the channel between the fence and the shore (fig. 24). One or two men zigzag from the other end of the channel striking the water with a long pole, which makes an explosive noise and drives the fish toward the men with the nets, who scoop them out of the water, wrap them in their nets to immobilize them, and stun them with short round clubs. The fishermen thread each fish through the gills with a wooden needle and hang it on a cord wrapped around their waist.

When this method is used in the daytime, the water beaters drive the fish by diving in the water with a net of the second type in which they scoop up any fish that pass by.

In the low waters of the Pilcomayo and Bermejo Rivers, the Indians build a zigzag weir with narrow openings; in front of each opening, a platform is raised, from which they catch in large scissor nets fish descending the stream (fig. 25). On cold nights fishermen warm themselves by fires that burn on a layer of earth on the platforms. Identical platforms are placed at river bends where the eddies push the fish against the shore.

The Pilcomayo River bed is full of depressions and holes, which are well known to the Indians and in which fish can always be caught.

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[24] One which I saw was about 100 yards (91 m.) long.

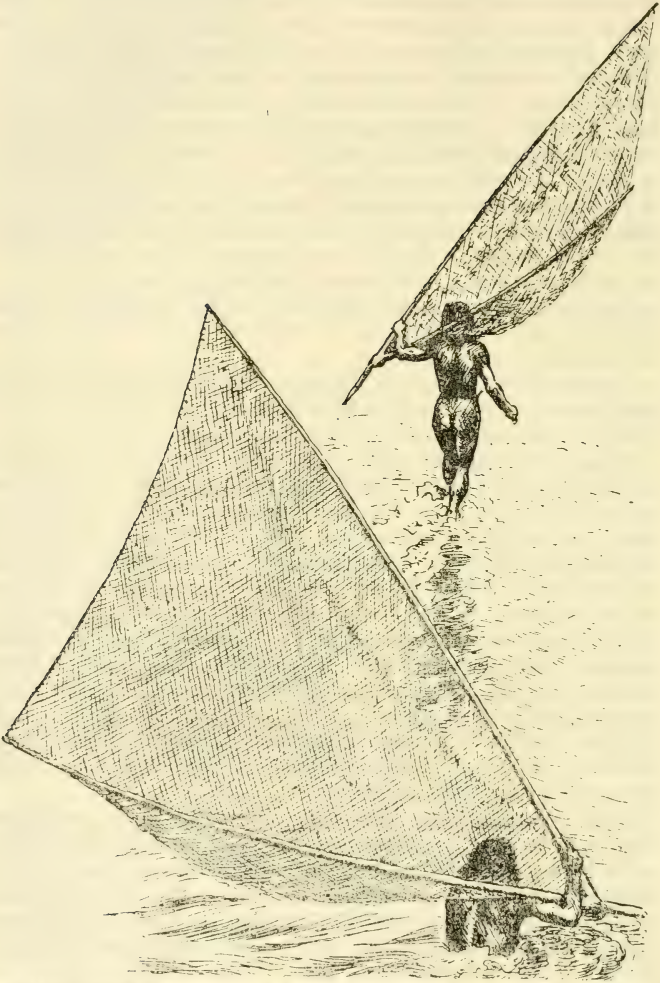

FIGURE 24.—*Ashluslay* fishermen with barring nets. Pilcomayo River, Gran Chaco, Bolivia. (After Rosen, 1924, fig. 113. Sketched from photo by E. Nordenskiöld.)

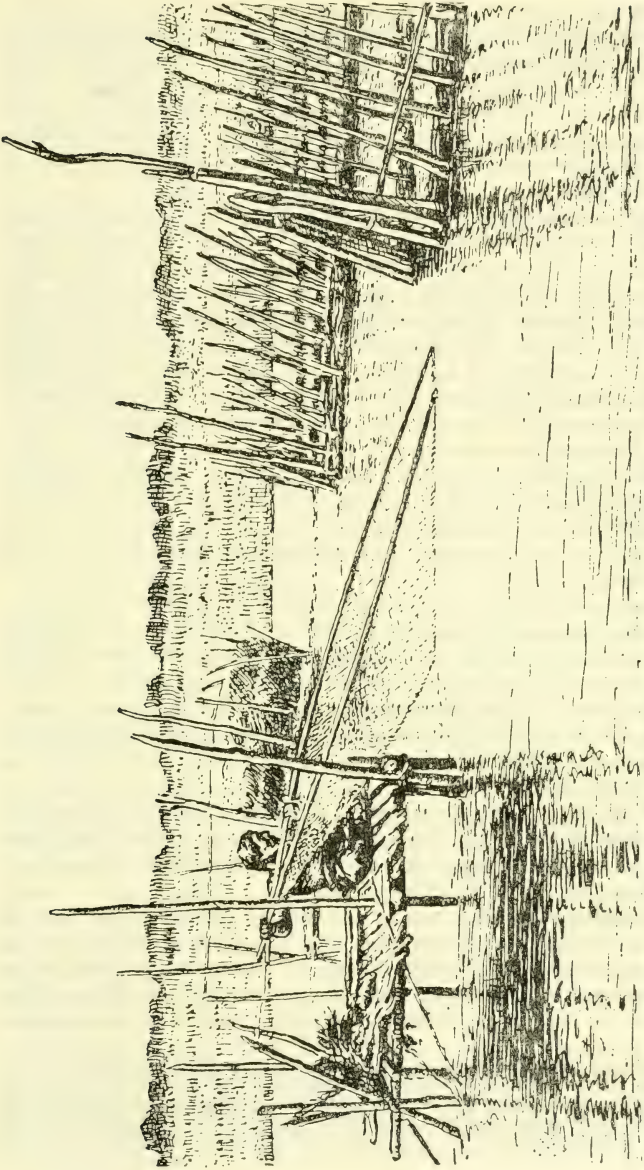

FIGURE 25.—*Choroti* fish fence. Built across the Pilcomayo River with openings at intervals. A man fishes with a dip net from a platform built in front of an opening. (After Rosen, 1924, fig. 114. Sketched from photo by E. Nordenskiöld.)

especially in cold weather when they are numb. An Indian holding the second type of dip net dives, opens his net under water, and returns to the surface with his catch. He then hurries to warm himself by a fire. In low water, a fisherman, using the same net, holds the lower stick of the frame close to the bottom, draws the net slowly along, and closes it on his prey. A group of fishermen may also corner fish along the river bank and scoop up scores in their nets and throw them on the shore.[25]

The *Lengua* catch eels and lungfish (*Lepidosiren*), which abound in their region, with slender spears. They also take them by hand, and wear a band of small bones across the palm of the hand to get a better hold (Grubb, 1913, p. 82). The *Mataco*, *Toba* (pl. 48), and *Pilagá*, especially in cold weather, spear fish with long bamboo rods tipped with wire. The *Mataco* of the Bermejo River fish with a crude harpoon consisting of a 15-foot (4.5-m.) pole of light wood to which a small foreshaft is attached at the distal end; the detachable head is the sharpened tip of a cow horn with a lateral flange and a hole for the string on the edge (fig. 36, *h*). The long recovery cord is not tied to the shaft, but is held by the fisherman. Similar harpoons, known to the *Mocoví*, have been described by Baucke (1870, p. 265; see also Baucke, 1935, pl. 16). Heads of this type have been found in the Paraná Delta, where such harpoons were employed as a thrusting javelin.

During the flood season, the Indians shoot fish with bows and arrows, the *Mataco* using harpoon arrows. *Pilagá* fishermen sometimes shoot from a flimsy platform in the trees overhanging the water, where a crude fence open at both ends brings the fish within shooting range.

No Chaco tribe stupefies fish with poison. The *Mataco* and *Chorotí* lure fish by throwing the leaves of a creeper or of the bobo tree or branches of chañar into the water, and then shoot the fish when they nibble the bait.

When they wade in shallow, calm waters, usually teeming with ferocious palometa fish which may tear off large pieces of their flesh, fishermen often wear protective "stockings" knitted of caraguatá fibers or, in modern times, canvas gaiters.

Hunting.—Hunting was an important economic pursuit for all Chaco tribes, especially for those who, like the Bush *Mataco*, had no access to the river. Scarcity of game is one cause for the decline of the *Pilagá* and a factor which compels them to serve the Whites. Possession of the horse facilitated the capture of game and thus increased the economic value of hunting in several tribes. Except during the busy fishing season, one or the other person in an extended family is always engaged in hunting. Whenever a group travels to a new territory, the men scatter in search of game, while women slowly move along under their heavy burdens.

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[25] Dobrizhoffer (1784, 1: 376) describes a fishing method which has not been observed among modern Chaco Indians: "For fishing they [*Vilela* and *Payaguá*] use a very small net, two ends of which they fasten before them, as you would an apron, at the same time holding the two others with their hands. Thus accoutred they jump from the shore into the water, and if they spy any fish at the bottom, swim after it, catch it in the net, which they place under its body, and carry it to shore."

Collective hunting was more common among horsemen than among foot Indians. Parties of 20 or 30 *Mbayá* or *Mocoví* horsemen encircled a wide area and gradually closed in, driving the game to the center, where they killed the animals by hurling their clubs or by knocking them down at close range.

Burning grasslands or the bush is a common hunting method throughout the Chaco. Even if the fire does not raise large game, it always puts to flight hundreds of small rodents at which the hunters hurl short clubs with bulging heads. The charred carcasses of animals overtaken by the fire are gathered up and eaten on the spot. Later the Indians return to the fired area to stalk the countless deer lured by the salty ashes or the thick and tender new grass.

The winter hunting drives of the Bermejo River Indians also require the collaboration of many people. Two parties of about 100 men set fire to the bush along parallel lines; the animals caught between two walls of fire seek to escape at the ends, where they are met by the hunters, who kill them with spears, clubs, or arrows.

The *Mbayá* surrounded the open space between two thickets with a flimsy fence. When a herd entered the few openings in the enclosure, the Indians closed the gates with strings and killed the terrified animals. The *Mocoví* captured rheas in the same way, but used a fresh skin full of flies as a bait.

From every point of view the most desirable game are rheas, deer, and peccaries. In order to get within range of the rheas, hunters cover their heads and shoulders with bundles of grass or palm leaves and slowly approach the unsuspecting birds until within arrow or bola range. The Pilcomayo River Indians disguise themselves with rhea feathers and, stretching one arm over their head, mimic the movements of their prey so skillfully that the birds remain indifferent to their presence until they are shot. When the *Lengua* hunters discover a flock of rheas in scrub country, they block up the open spaces between the various copses with brushwood, and other Indians lying in wait at given points drive the birds toward the fence, which, however flimsy, prevents their flight (Grubb, 1913, p. 85).

The *Mbayá* shot white-lipped peccaries (*Tayassu pecari*) with arrows or clubbed them at close range, despite the danger of attacking these animals when roused. Peccaries were also driven into a river, where they were slaughtered, or into a deep ditch covered with twigs, where they fell on top of one another.

The Chaco Indians assume that red head bands or red ponchos so fascinate deer that they are unable to run away, thus allowing the hunter to walk within shooting range. They also know how to decoy animals by imitating their calls. Some hunters build blinds near watering places from which they shoot game.

The equestrian Indians did most of their hunting on horseback. Naked *Mbayá* hunters riding bareback on specially trained horses, pursued deer until they were abreast of them and could either knock them down with clubs or transfix them with spears. The use of bows and arrows was restricted to hunting in thickets where horses could not move freely.

Jaguars are surrounded by hunters armed with spears and are killed when they attempt to break through the circle of assailants. The *Mbayá* caught jaguars in a ring of fire and slew the animals with clubs and spears. They also caught them in a trap which consisted of a spring-pole noose trap. The *Mocoví* and *Mataco* combined this type of trap with a pitfall. For various traps, see figures 26, 27, and 28.

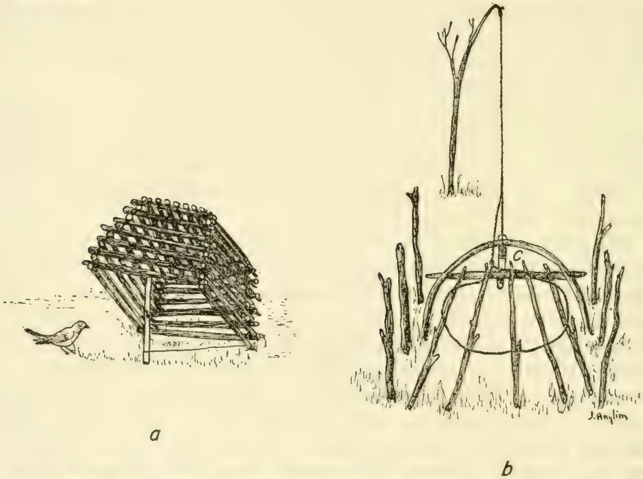

FIGURE 26.—*Mataco* traps. *a*, Bird trap; *b*, spring-pole trap; *c*, trigger releasing trap.

The marshes and lagoons of the Chaco teem with water birds which are easy to kill when they are surprised at night roosting on trees or sleeping in the pools. Hunters hurl a rain of sticks at them or confuse them with torches and kill them at their leisure.

Concealed by clumps of weeds or by calabashes, the Indians swim toward ducks and drown them by pulling them under water by the legs. Calabashes are thrown into the water previously, so that the birds become familiar with their appearance and do not suspect the ruse.

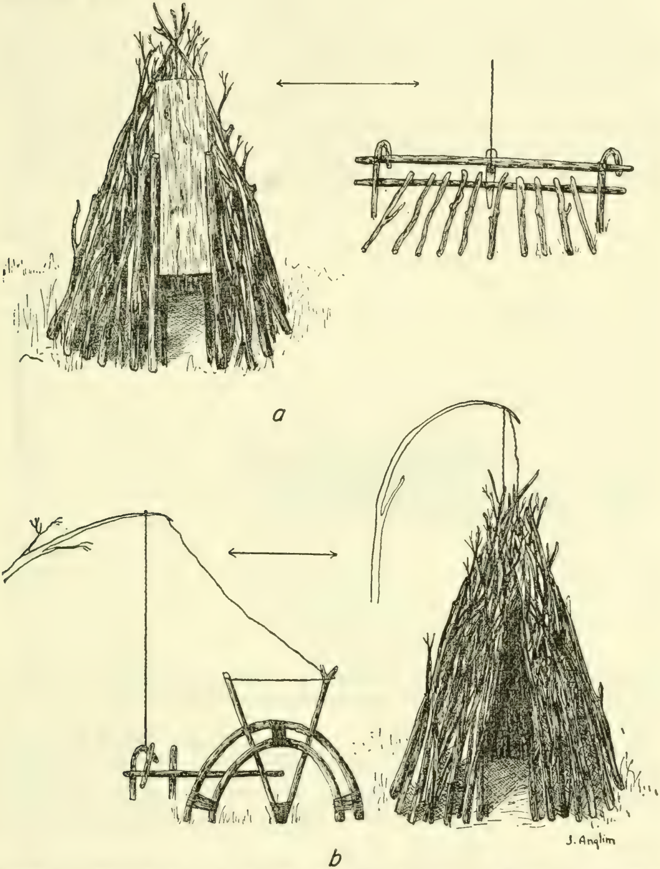

Figure 27.—*Mataco* traps. *a*, Fox trap with sliding door. The interior mechanism is shown at right; *b*, fox trap with interior mechanism shown at left. The V-shaped aperture is arranged inside the doorway. By entering door to get the bait, the animal releases the spring pole and is strangled.

Other animals of lesser economic value hunted by Chaco Indians are anteaters, foxes, otter, caimans, armadillos, carpinchos, iguanas, and, occasionally, tapirs. Caimans are speared along the shore or are killed with a harpoon tipped with a wooden or bone head (*Mbayá* and *Mocoví*). Otter are stalked with dogs and beaten to death with sticks.

Hunters wear hunting charms sewn into belts or in small pouches. The magic bundle for catching rheas is made of this bird's neck and contains grass, leaves, and other foods eaten by it. The *Pilagá* paint themselves black when hunting rheas, believing that the birds will not recognize them. The Indians rub their bodies with special plants to insure good luck. In order to establish a bond between themselves and the rheas which will facilitate their hunting luck, some *Lengua* bury a wooden egg in the ground and sit on it for a short while (Alarcón y Cañedo, 1924, p. 50). The *Lengua* also use wax images as hunting charms, and on the night before a hunting party, they chant to the rhythm of their rattles to lure the prey to special areas. The ancient *Mocoví* smeared their dogs' snouts and their horses with jaguar blood to make them scent the animal from afar.

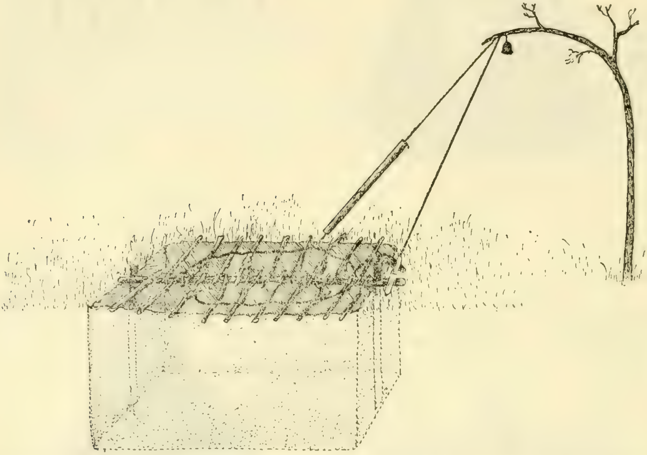

FIGURE 28.—*Mataco* jaguar trap. Schematic representation of pitfall and spring pole. Animal falling into pit releases spring pole and rings bell on tree.

Mataco and *Lengua* hunters always pluck the head feathers of birds they have shot and scatter them along the path to confuse and deceive the birds' spirits.

Distribution of game.—When several *Mbayá* hunted together, the man who dealt the animal the death blow had the first right to the carcass and directed its division among the hunters (Sánchez Labrador, 1910–17, 1:202). The *Mocoví*, on the contrary, gave the game to the man who hit it first, even though someone else actually killed the animal (Fúrlong C., 1938 c, p. 106). The leader of a *Mbayá* hunting party received the heart of the slain animal.

Food taboos.—Unless influenced by some magic belief, Chaco Indians show little discrimination in the choice of their food. Those who live in harsh surroundings, like the bush *Mataco*, are least particular; without reluctance they eat anteaters, wildcats, otter, foxes, armadillos, land turtles, water serpents, frogs, snails, lizards, and rhea (ñandu) eggs in any condition.

Most Chaco Indians strongly believe that the properties of an animal are easily transmissible to those who eat its flesh. To absorb the jaguar's fierceness, the *Abipón* ate even the smallest morsel of its meat or drank its fat. But, fearing to acquire "sloth, langor and cowardice," they despised hens, sheep, and turtles. Some food taboos depend on a person's age; old people who are no longer active have no dread of certain foods. Thus *Mataco* greyheads may eat armadillos, but young people avoid them lest they become lazy because this animal turns sluggish when the air is chilly. Skunk and fox flesh likewise are tasted only by the aged. Deer marrow was greatly relished by elderly *Mocoví* males, but was strictly forbidden to young warriors for reasons stated in a myth. The *Mataco* never eat peccary lest they get toothaches and their teeth chatter as do those of this animal when it is roused. The liver of any game animal causes the teeth to decay. The *Toba* fear that the meat of the collared peccary and the domesticated pig will give them ulcers on the nose. The *Mataco* shun deer meat for unexplained reasons.

Though rhea eggs, fresh or half hatched, are a favorite food, chicken eggs are never eaten. Milk, easily obtained from cows, sheep, and goats, is shunned because it is thought to transmit undesirable traits of these animals.

Food preparation.—Meat is roasted on a spit or is boiled. The *Mataco*, *Chorotí*, *Ashluslay*, and probably many other tribes sometimes bake a large piece of game in an earth oven—a round pit, wider at the bottom than at the top—in which wood is burned. Some of the ashes are removed and the unskinned game is placed in the pit and covered with straw and soil. The *Ashluslay* and *Tsirakua* earth oven is provided with a lateral funnel.

No part of roast game is wasted. The intestines are simply squeezed and their half-digested contents often consumed as "vegetables." The Indians roast small camp rats, of which they are very fond, without even opening the carcasses.

A *Kaskihá* specialty is a sort of pie or sausage made of chopped rhea (ñandu) liver, blood, and grease stuffed in this bird's oesophagus and baked under the ashes. Any grease that remains is mixed with rhea eggs and salt and put into a bladder to be cooked in the same fashion. The *Mbayá* seem to have learned from the Spaniards how to prepare jerked meat.

Fish are inserted between the two halves of a split stick, which is stuck by the fire. Sometimes *Toba* coat fish with clay and bake them under ashes.

Broiled fish keep for a long time and are stored on the roofs of the huts. The entrails and the fat liver of fish or game are fried and the melted grease eaten as gravy with several vegetables or with the meat itself.

Most of the wild tubers collected by the *Mataco* are either boiled for a whole day or are roasted and then cooked in water. One of the most palatable foods of the bush is a creeper (*Mataco:* xwiyelax), which is first roasted and then boiled. The leaves of the edible Bromelias[26] are baked in ashes. The seeds of the same Bromelias are roasted, crushed, and boiled. Tasi fruits are roasted in ashes and eaten with fish grease.

Algarroba and tusca pods and mistol fruits are crushed in a mortar (pl. 49) and eaten mixed with water. Everybody sits around the vessel containing the mush, seizes a handful of it and sucks out the flesh, then puts the inedible seeds or skins back in the pot until nothing substantial is left. The *Ashluslay*, *Lengua*, *Mbayá*, and probably other Chaco Indians make cakes out of algarroba flour kneaded with water and baked. Chañar fruits are boiled, smashed in a mortar, and then kneaded into balls. The terminal shoots of palms are eaten raw, roasted, or boiled. To obtain the starchy pith of palm trees, the *Mbayá* extracted the long fibers imbedded in starch from the lower part of the trunk. They either pounded them in a mortar and sucked them or else dried them on a platform in the sun or over the fire, pounded them, sifted them through a net, and then made them into loaves or cakes.

Palm fruits were eaten raw in natural form or were first crushed in a mortar; they were often boiled to make a thick mush. The fruits (cocos) of the namogologi palms (mbocayá, *Acrocomia totai*) were eaten raw or were first roasted in the ashes; the kernels were broken to extract the seeds, and those with flesh still adhering were boiled into a thick syrup. Modern *Toba* pound the pith of the caranday palms (*Copernicia cerifera*) in a mortar and then boil it into a mush. The Lengua grate palm pith to make it into a flour for cakes.

Young tender maize is generally roasted in ashes or boiled in water. The grains of mature maize are boiled. The *Mataco*, like the *Chiriguano*, roast the maize grains, pound them, and make a mush with the flour.

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[26] One species is used only for rope making.

The seeds of the naranja del monte require lengthy treatment to soften them and remove their bitterness. They are pounded in a mortar to break the hull, which is then peeled by hand. Then they are piled in a bag and immersed in water for a whole night, after which they are cooked in several waters and sometimes mashed again in a mortar.

The fruits of the sachasandia must be boiled five times in different waters to get rid of their poisonous element.

At the end of summer, the Pilcomayo and Bermejo River Indians consume large quantities of pods which appear and taste like string beans and are therefore called "porotos del monte" (*Capparis retusa*). They must be boiled in five different waters to remove the bitter taste.

Food storage.—In summer the Indians gather great quantities of algarroba or chañar which last several months after the harvest, but seldom tide them over the actual period of scarcity in winter. The main food reserves consist of porotos del monte, dried naranja del monte (*Capparis speciosa*), the poisonous fruits of the sachasandia (*Capparis salicifolia*), and smoked or dried pumpkins. To preserve them, the porotos del monte and the naranja del monte are often baked in an earth oven before exposure to the sun. The seeds of the naranja del monte are boiled and sun dried until they are as hard as stone and will keep for more than a year. At harvest time, the *Mataco*, like the ancient *Mbayá*, make winter provisions of pumpkins. The pumpkins are cut into halves, which are sun dried or smoked on a wooden platform. The seeds are roasted. The ancient *Mbayá* boiled pumpkin seeds, pounded them in a mortar, and then boiled them again until they turned into a thick mush. Preserved foods are heaped in some corner of the hut or in special granaries.

Storehouses, quite common among the *Mataco* but rare in the eastern Chaco, are built like the *Chiriguano* pile granaries, but are far smaller (pl. 51). The roof, built above a low platform, is flat and the walls are imperfectly closed with branches. These storehouses contain the fruits pooled by the women of the household and become their common property. If somebody in the family asks for a gift of algarroba, the headwoman of the household makes the distribution.

Some Chaco Indians—especially the *Mbayá*—feast on the fat beetle larvae that thrive in plam trees. These are fried in their own grease.

Condiments.—Chaco Indians season their food with the ashes of various plants, e. g., vidriera (*Mocoví*, *Abipón*), saladillo (*Ashluslay*), and oe bush (*Toba*). Tribes living near the Andes obtain rock salt from the *Chiriguano* or *Quechua* of the region of Tarija, where large salt deposits have been the object of a continuous trade since pre-Hispanic times.

The *Toba* season their food with small oval fruits which taste like pepper and are called ajá del monte.

Cooking utensils.—The Chaco tribes who raise manioc, such as the *Ashluslay*, *Chorotí*, and certain *Mataco* groups, grate it on rasps made of a piece of wood with imbedded wooden splinters. This instrument is probably rare since its existence is reported only by Nordenskiöld.

To open and scale fish, the Indians formerly used a square, sharp-edged piece of hard wood, which today is often replaced by a wooden imitation of a steel knife.

Calabashes and shells serve respectively as plates and spoons, but true wooden spoons (fig. 32, *b*) were carved by the Indians near the Cordillera who were subjected to Andean influence. In many tribes (*Toba*, *Ashluslay*, etc.), horn spoons have become quite popular since the introduction of cattle. The *Pilagá* also make long oval clay dippers which have replaced shells. The *Mocoví* had rawhide spoons which they shaped by molding the wet skin in a hole in the ground.

Mortars are dug out of palm or espinillo (*Acacia* sp.) tree stumps and are always sufficiently small to be carried easily during the frequent group migrations (fig. 35, *b*, *c*). The handles of the digging sticks are used as pestles. When traveling, the *Mocoví* and the *Ashluslay* may improvise mortars by digging pits in the ground and lining them with skins or with hard clay.

DOMESTICATED ANIMALS

Dogs.—Modern Chaco Indians are surrounded by packs of famished dogs, which are a constant threat to food and to any object within their reach. The attitude toward dogs is peculiar. The Indians starve and maltreat them (pl. 74), but they would be grievously offended if anyone were to kill them. The ravenous animals devour everything they can gnaw, from algarroba pods to skins and human excrement. They bark at the slightest noise and thus are useful as watchdogs, though they respond alike to the approach of animals and men. The *Pilagá* and *Mataco* train their dogs to hunt peccaries, rabbits, or iguanas, and to force armadillos out of their burrows. The *Mataco* are proud of the dogs that "feed themselves," that is, those capable of catching rabbits on their own.

The ancient *Abipón* and *Mbayá* were more kindly disposed toward their dogs than the Pilcomayo River Indians. Women would suckle puppies, and would always make sure that no dogs were left when they moved camp. They rewarded hunting dogs with the entrails of game.

Zoologically, Chaco dogs are mongrels of varied European strains, but if Krieg (1939) is correct, some may have aboriginal Indian canine ancestors. There is some historical evidence that the Chaco Indians did not have domesticated dogs before their contacts with the Whites. The *Machicuy* (a *Mascoi* tribe) received their first dogs at the end of the 18th century, and the *Mbayá* must have acquired them only a little sooner.

Livestock.—Most of the Chaco tribes early began to herd sheep, probably at the end of the 17th century, and owned large flocks. Next to horses, they most frequently stole sheep from the Whites. In an *Ashluslay* village of about 400 inhabitants, Nordenskiöld (1912, p. 55) counted 500 sheep and goats.

Weaving, probably of little importance in the pre-Hispanic era, developed considerably after the introduction of sheep. Mutton and the flesh of other domesticated animals were shunned by the *Ashluslay*.

The *Abipón* and *Mocoví* stole thousands of cattle in raids on the Spanish ranches, but never became herdsmen like the *Goajiro*. Most of the cattle were slaughtered to provide for immediate needs and the stock replenished by further raids. Not long ago the *Mbayá* hunted the wild cattle roaming in their territory exactly as they did deer. Nordenskiöld's *Ashluslay* village had also about 200 cows and the same number of horses.

Goats are fairly common in native villages of the Pilcomayo River region. They are also kept for their flesh. Indians, as a rule, have always expressed the greatest disgust for milk.

Donkeys are in great demand among the western tribes, who never have had many horses. They carry the stores of algarroba and the furniture during camp migrations, thus relieving the women from their heaviest duty.

Chickens spread through the Chaco with great rapidity, but never played an important part in Indian economy.

In addition to the large number of domesticated animals, the Indians like to keep pets. *Abipón* women are said to have nursed baby otter.

The *Guaná*, *Mbayá*, and *Mocoví*, like many Amazonian tribes, plucked the feathers of tame green parrots and rubbed the bare spots with urucú or with other pigments. The new feathers grew in yellow, the favorite color for feather ornaments (Sánchez Labrador, 1910–17, 1:215–216).

Horses.—The *Abipón* and *Mbayá* must have had enormous herds of horses, if Dobrizhoffer does not exaggerate when he reports that from some raids a warrior would come back with at least 400 horses and that 100,000 horses were captured by the *Abipón* within about 50 years. The 380 *Caduveo* who in 1802 settled at Albuquerque had 1,200; the *Mbayá* of the region of Coimbra had from 6,000 to 8,000 horses. The possession of so many horses forced these Indians to look for suitable pastures and modified their whole economy.

The *Mbayá* took good care of their horses. They bled them when sick, picked out their worms, and when a foal was born during a journey, carried it on another horse (Sánchez Labrador, 1910–17, 2:298).

In both training and trapping, the Indians tended to follow Spanish styles. When, for instance, they noticed the Spanish gaited horses, they did their best to train their own horses in the same way. Indian horses were remarkably well adapted to Chaco life. They ran across the bush, dodging palms and thorny trees without guidance by the rider. They were also so well trained for hunting that they responded immediately to the slightest touch when game was seen or heard. Some *Abipón* horses were taught to wait for their masters without stirring, and the *Mbayá* horses were so tame that their riders could mount by stepping up on the horses' knees.

The *Mbayá* broke in their horses by riding them in a marsh until they were exhausted; consequently their horses could cross swamps with great ease.

When the Indians first adopted the horse, they had too few contacts with the Spaniards to be able to acquire their elaborate trappings. The bit was often a rope or a piece of leather tied around the horse's lower jaw. Saddles were quite rare and were seldom used by men. Even in 1762, *Mbayá* men rode bareback, although women used saddles. Gradually, however, the Indians became more interested in the complicated bits and saddles which were the pride of the Creole horsemen. The 18th-century *Abipón* and *Mocoví* made wooden or horn imitations of the iron curb bits of the Spaniards. In the same period, the *Mbayá* guided their horses either with a simple wooden bit or with a strap tied around the horse's lower jaw, to which a head stall of leather or of woman's hair was attached. The forehead band was trimmed with metal plates, beads, and bells. The *Mocoví* bridles and halters were often braided with leather strips mixed with feather quills which stood out as an ornament.

The *Abipón* saddle is described by Dobrizhoffer (1784, 2:120) as a "raw bull hide stuffed with reed bundles." These two bundles (bastos), which rest on both sides of the horse's spine and prevent saddle sores, were also part of the *Mbayá*, *Mocoví*, and *Pilagá* saddles. Over the bundles, the *Mbayá* placed several rush mats covered by a large deerskin or by blankets embroidered with beads. Jaguar skins were regarded by the *Abipón* as the most elegant saddle covers.

The *Mocoví* and *Pilagá* horsemen were the only Chaco Indians who used rudimentary stirrups and spurs. Their stirrups were either a wooden ring large enough for the insertion of one toe or a simple stick or disk on which the rider could place two toes. The spurs, of which they never used more than one, were a simple forked branch attached to the heel with the projecting stem somewhat sharpened (fig. 32, *g*).

Abipón men mounted their horses from the right, leaning on their long spears; women got up from the left without any help.

Mocoví women saddled and pastured their husbands' horses. The *Mocoví* attached stuffed rheas (ñandus) on the back of their horses to frighten the flies away.

The *Mbayá* caught their horses with a loop attached at the end of a long pole or with bolas, methods learned from the mission *Guaraní* (Sánchez Labrador, 1910–17, 1:245).

HOUSES AND VILLAGES

The Indians of the Pilcomayo and Bermejo Rivers live in crude and primitive houses which contrast sharply with their achievements in other arts and crafts. House construction is the women's task. With digging sticks they make an oval or sometimes a circular set of holes into which they plant small tree trunks or stout limbs, with the thick ends down, and the lateral branches uncut to add to the solidity of the structure. The slender tips, bent inward, interlace to form a vaulted frame on which are thrown loose palm leaves or grass or both. Such roofs afford some protection against the sun but not against the rain, which drenches those who do not take shelter under skins or reed mats. These dwellings are never high enough for one to stand upright. They are entered through one or more low openings, on one side of which a rudimentary screen projects slightly so as to form in certain cases a short porch or vestibule of branches or leaves.

As a rule, groups of related families reside in long communal houses which are merely a series of individual huts linked together end to end, without internal partitions. Each comparment has a separate exit.

The *Pilagá* and *Ashluslay* house (pl. 50) often has an ellipsoidal ground plan with one slightly concave side. Long houses sometimes face each other across a wide street or plaza. Under Mestizo influence, the *Pilagá* (pl. 51), *Toba*, *Macá*, and *Ashluslay* build long communal houses which, from the outside, look like their primitive huts, but actually have a rigid framework with a ridge pole and rafters hidden under a thick layer of leaves or grass. Houses with the modernized structure are, however, higher than the ancient ones and often one long side remains open. The *Toba* near the Paraguay River construct similar houses with flat roofs and walls of rush mats. The Mestizo hut, with its flat roof resting on forked tree trunks and its grass or reed walls, has been imitated wherever the Indians are in close contact with civilization. Temporary huts are cruder than the more permanent dwellings; their framework is reduced to a few sticks and the grass covering is scant and runs only halfway down.

The *Chamacoco*, *Lengua*, *Mbayá*, *Abipón*, *Toba*, *Pilagá*, and *Payaguá*[27] camp under bulrush mats laid on a flimsy framework of sticks, or stretch on the low branches of some tree (*Chamacoco*, *Caipotorade*). Dobrizhoffer (1784, 2: 127) describes these "tents" as follows: To two poles in the ground, they tie a mat folded two or three times to make a wind and rain shield. A ditch dug beside the tent drains off rain water. Some temporary *Lengua* or *Ashluslay* villages are composed of one or more long lines of such mat-houses. The *Mocoví* and *Payaguá* build identical wind screens often of skins instead of bulrushes. The *Pilagá* use mat wind screens or sunshades in their more permanent villages. When moving, the Indians roll up the mats, wrapping within them most of their belongings, and women carry them on their backs or load them on horses or donkeys.

When camping in the open, the *Mataco* heap branches and grass against a row of sticks planted in the ground. The *Chamacoco* settled near trading stations sleep in corrals of several semicircular lean-tos joined together.

Circular camps seem to have been distinctive of the ancient *Zamucoans*. One of their nomadic tribes, the now extinct *Caipoterade*, are said always to have arranged their flimsy mat cabins around a circular plaza (Muriel, 1918, p. 208).

The largest and strongest houses in the Chaco are those of the northern tribes: *Sanapaná*, *Kaskihá*, *Guaná*, and *Mbayá-Guaicurú*. They are simple gable roofs supported by three parallel rows of vertical posts. One wing of the roof slopes almost to the ground, forming the back of the house, and the other projects beyond the wall plate to form a continuous porch along the open front. The narrow ends either remain open or are shut with mats or slanting poles.[28] The ancient *Mbayá* covered their hut frames with bulrush mats which were tied together, and sometimes added a few supplementary rows of low vertical posts so as to extend the matting closer to the ground. According to the weather, they lowered or raised these mats and they always had a few in storage to close the gaps through which rain might penetrate. The wet rushes expanded making the mats waterproof. When moving to new pastures, the *Mbayá* carried the strong bamboo house rafters and the mat walls. *Kaskihá* huts formerly were thatched with reeds; today they are roofed with split caranday (*Copernicia cerifera*) trunks.

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[27] The *Payaguá* had high huts for summer, low ones for winter. "En cuanto la construcción siempre es igual y se reduce a plantar cinco palitos de horqueta que forman por sus traviesas la figura de tejado. Se atraviesan algunas cañas y lo cubren con sus esteras. Queda sin mas muebles ni trabajo hecha la casa y para quitar la fuerza del viento que pasaría por el toldo le cierran por la parte de varlovento con las mismas esteras a pique" (Aguirre, 1911, p. 332).

[28] For a description of the *Kaskihá* hut, see Cominges, 1892, p. 176. For the *Mbayá* hut, see Sánchez Labrador, 1910–17, 1: 268–274.

Mbayá houses were set end to end in a horseshoe or semicircular plan around a plaza which was kept scrupulously clean, and from which horses were excluded (pl. 52). The chief's house was always in the middle of the row; among modern *Mbayá-Caduveo*, it is larger and better built than the others. The space between the front and the central posts of each house was left free and formed a kind of passage around the village. The divisions between the individual huts were marked by forked poles from which hung various objects (pl. 52).

In the 18th century, the long *Guaná* huts, like *Paressí* communal houses, had an arched roof descending to the ground and rounded extremities. The framework consisted of flexible poles, which were bent and tied in the middle. These huts were from 50 to 65 feet (16 to 20 m.) long, 26 feet (8 m.) wide, and 16 to 20 feet (5 to 6 m.) high. They were artfully covered with a straw thatching in which were smoke holes. The doors, 1 at each end and 3 along one of the long sides, were closed with mats. Each hut housed an extended family sometimes consisting of 12 biological families. The houses were grouped around a large rectangular plaza.

The *Guarañoca* of the northern Chaco live in conical huts about 7 feet (2 m.) high and 9 to 12 feet (2.5 to 3.5 m.) in diameter. The frame of sticks supported by a central post, is covered with leaves, mud, and twigs (Oefner, 1942, p. 103).

The temporary huts of the *Sanapaná*, *Angaité*, *Sapukí* and *Kaskihá* are flimsy structures identical to the beehive houses of the Pilcomayo region. When camping in the bush, the *Guarañoca* enclosed their shelters with a circle of thorny branches.

When selecting a village site, the Indians take into consideration, first, security, and, second, proximity to water, food supply, and pastures for horses and cattle. For safety, they prefer the edge of the bush into which they can run if they are surprised by an attack. The *Kaskihá* are the only Indians who place their villages on hilltops. Location is frequently changed seasonally or following a death. In the northern Chaco where water is scarce, villages are more permanent and houses are often better built.

The size of the settlements varies considerably; some have about 50 inhabitants, others, especially the *Ashluslay*, 1,000.

As a rule, the Indians stay and even sleep out of doors unless excessive heat or rain forces them to crawl into their huts. The *Mataco*, *Chorotí*, *Ashluslay*, and *Macá* erect simple square sheds in front of their huts under which they cook or now and then take a nap. The *Pilagá* and *Ashluslay* are apparently the only Chaco

Indians who have a club house, that is, a shelter where men meet and sometimes spend the night. Some *Pilagá* and *Ashluslay* villages have a crude palisade before the houses, which serves as the backwall of a series of open sheds under which to sit and chat or work.

FURNITURE

Most Chaco huts contain no furniture other than rough skins with the hairy side underneath or rush mats, which are their beds and seats. The *Mataco*, *Toba*, and *Lengua*, who have been under Mestizo influence, sleep on crude bedsteads. When the *Guaná* lived in the Chaco they slept on mats though they were already good weavers and certainly had not forgotten the use of the hammock. In the middle of the 19th century, hammocks figured among the best articles which they made to trade with the Neo-Brazilians. Hammocks were also used by the mission *Zamuco*. Among the Pilcomayo and Bermejo River tribes, fiber hammocks, though commonly used, serve only as cradles for babies. The *Mocoví* cradle was a skin attached to two posts.

The *Mbayá*, *Kaskihá*, and *Guaná* after their migration to Matto Grosso built low, sloping platforms, made of split palms, along the back of the dwelling (pl. 52). They covered these with mats, which, rolled up during the day, served as seats. The *Chamacoco* protected themselves from the moist soil with a rough palm-trunk floor.

In every Chaco hut there hangs from the interlaced twigs of the roof, skin bags, carrying nets containing ornaments, seeds, spun and unspun wool, drugs, and all sorts of possessions. The bows and arrows are thrust into the thatching. On the floor, pots and calabashes add to the confusion and untidiness of these hovels.

The *Chamacoco* and *Morotoco* defend themselves against the swarms of mosquitoes which plague them with a mosquito swatter consisting of a piece of twined fiber cloth attached like a flag to a short handle. The *Guató* use similar mosquito flaps.

DRESS AND ORNAMENTS

The aboriginal Chaco dress, like that of ancient Patagonia and the Pampa, seems to have been a simple skin cloak worn by both men and women in cold weather. In pre-Conquest times, as today, cotton blankets were probably in use among some of the northern tribes. Very likely the Indians along the foothills of the Andes had some llama wool garments.[29] As soon as the Chaco Indians obtained flocks of sheep, the skin cloak gave way to a woolen blanket, which by the

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[29] Some 17th-century documents mention cloaks (mantas) of caraguatá fibers among the Indians of the region of Tucumán and Salta. (See Tommasini, 1937, p. 79.)

18th century was common among the *Abipón* and in recent days has become the distinctive garment of the Pilcomayo tribes. Creole styles have also influenced the Indian dress. The poncho (pls. 53; 59, *top*), for instance, has found wide acceptance in many tribes since the 18th century. Among the *Toba* and their neighbors, some men on solemn occasions donned sleeveless coats, woven on the native loom but copied from European patterns. The men's skirt of the Pilcomayo River natives probably was not used before cotton cloth was readily accessible; it is reported only in recent times.

Chaco women usually preserved the native costume more faithfully than men, and dressed in skins long after men had discarded them for woven fabrics.

Complete nakedness is reported only for *Chamacoco* and *Guarañoca* men, though even these put on sleeveless caraguatá shirts on cold winter days; women always wear a perineal band. *Tsirakua* and *Guarañoca* women wear a small apron or a skirt of caraguatá or doraha fibers and, occasionally, throw a cape of the same material over their shoulders. The caraguatá apron was probably more common in the past than it is today, as it is often reported in the 18th century for the *Lule-Vilela* women. The feather skirts or aprons allegedly worn by men in the latter tribes were probably ceremonial garments, not daily attire.

The Pilcomayo River Indians discard all clothes, except a breechclout or a wide fringed girdle, whenever their activities require freedom of the limbs.

Skin robes.—Robes were originally made of several skins of otter (coypu, *Myocastor coypus*), deer, or fox, sewn together and worn with the hairy side against the body. The outer surface was decorated with crude black and red geometrical patterns[30] (pls. 56; 59, *bottom*). Both sexes wrapped the folded mantle around the waist and fastened it either by a belt or by tucking one end under the other. In bad weather they threw the upper part of the robe over their shoulders or even over their heads, and held it in front with the hand or fastened it with a thorn over one shoulder.[31] Skin robes have now disappeared altogether and have been replaced by blankets of wool (*Toba*, *Pilagá*, *Mataco*, *Chorotí*, *Macá*, *Lengua*, etc.) or cotton (*Payaguá*, *Kaskihá*, and other *Mascoi* tribes).

Skirts.—Knee-length skirts are worn by women in all the Pilcomayo and Bermejo River tribes. Before cotton goods were available these were made of either deer (pl. 59, *bottom*) or goat skins from which the hair had been scratched or, very rarely, of wool. Skirts were held up around the waist by a caraguatá rope or, among the *Mataco*, by a wide leather belt.

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[30] A *Mataco* robe acquired by Nordenskiöld at the beginning of the century is made of 15 skins, each decorated with its own individual pattern painted in two distinct manners. The thin-line designs are based on a series of squares, lozenges, and zigzags "obviously suggestive of old time decorations of the *Charrua* and *Tehuelche*" (Lothrop, 1929).

[31] *Mocoví* cloaks had skin straps at two corners to tie them over the left shoulder. To these straps they fastened a small tobacco box, made of the tip of a cow horn, or tubes containing needles for scarification (Baucke, 1870, p. 251).

Skirts were used by women long before European contact. Cotton skirts are already mentioned by Schmidel in the 16th century (1903, p. 193) as the only garment of the *Comagua* women of the lower Bermejo River, and the *Frentón* women of Concepción are described in 1609 as wearing skin skirts. *Guarañoca* females in the northern Chaco wear a caraguatá cloth around the waist.

Men's skirts among the Pilcomayo River tribes generally reach the ankles and lap over in front. The skirts of *Mbayá* men bore designs and snail-shell disk spangles.

Mbayá and *Guaná* women wore a square cloth which passed between the legs and was fastened around the waist.[32] Outdoors they wrapped themselves from head to foot in a large cotton blanket or tied a shorter one over their breasts when at work. Such blankets, which were fastened around the waist with a belt, were often beautifully striped or studded with rows of shell disks (Prado, 1839, p. 30).

Shirts, jackets, and tunics.—Sleeveless shirts, netted in the same crochetlike technique as bags, are used primarily as armor and as ceremonial garments (fig. 29), but also may afford protection against excessive cold (*Mataco*, *Toba*, *Pilagá*, *Ashluslay*, and others).

Jaguar-skin jackets, with or without sleeves, were among the most prized possessions of *Toba*, *Mocoví*, *Abipón*, and *Mbayá* men. They were worn mainly at war or on solemn occasions. In modern times some *Toba* and *Pilagá* men strut in jackets that are of European cut, but are tailored of otter, jaguar, and even of stork skins.

As a symbol of their profession, *Mbayá* shamans donned narrow tunics (camisetas) which hung to their feet.[33]

Tipoys.—Among the *Chorotí* and *Toba*, who live under the direct influence of the *Chiriguano*, some women dress in a tipoy, i. e., a cylindrical tunic held up over the shoulders with pins.

Belts.—Native taste for color and elegant design is best expressed in woolen belts. Throughout the Chaco, belts of wool, and sometimes of cotton, are usually woven in a compound technique, i. e., the geometrical figures appear on both sides in reverse colors.

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[32] Sánchez Labrador, 1910–17, 1: 280: "Es mantita como de vara en cuadro. Cinenea con dos puntas a la cintura y las otras dos puntas se levantan, quedando formados unos calzones."

[33] Sánchez Labrador, 1910–17, 1: 283: "Redúcese a una como bata ó vestido talar, que descansando sobre los hombros, les llega hasta los tobillos. Su forma conviene con la de las camisetas ó poncho, de los cuales se diferencia en ser la mitad más angosta y en estar por los dos lados cosida, menos por donde sacan los brazos ó como agujeros de mangas. Por la parte de arriba dejan abertura para sacar la cabeza; por el de abajo está abierto del todo para poder caminar, aunque el corte es tan estrecho que les impide dar pasos largos. Vense así obligados á medirlos con gravedad, segun pide su profesión embustera. El color de las lanas de que son ordinariamente, no es del todo blanco, ni negro, sino vario; en el telar sacan listas de pardo y colorado que declina en morado."

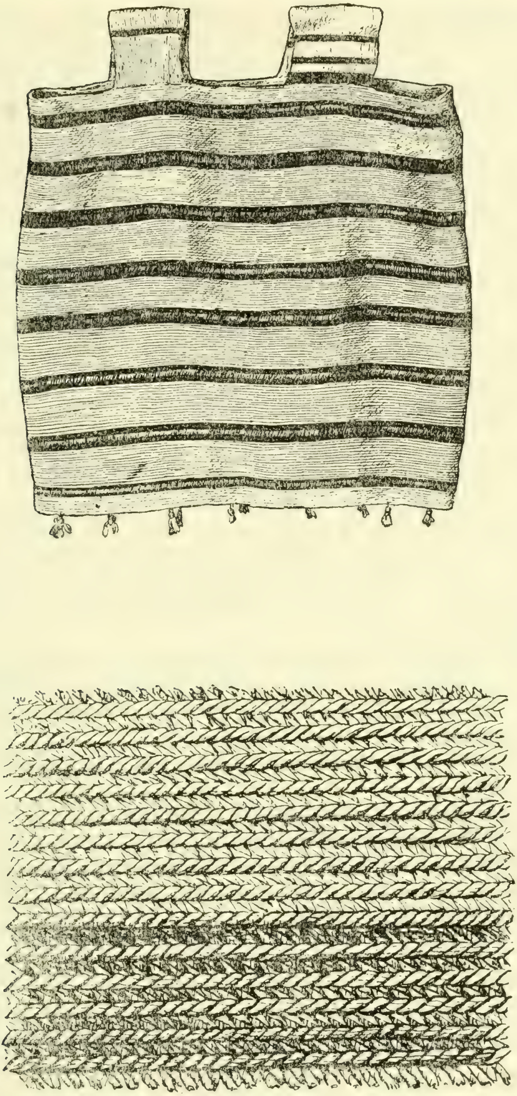

Figure 29.—*Chorotí* mail shirt. *Top:* Knitted of caraguatá string. Worn principally as a protection against arrows. *Bottom:* Enlarged detail of mail shirt (natural size). (After Rosen, 1924, figs. 36, 37.)

The geometric motives which enliven the *Pilagá*, *Macá*, and *Ashluslay* belts follow elaborate patterns (fig. 38), each peculiar to a tribe or even a band. Some *Pilagá* and *Mataco* belts with bright contrasting colors are finger-woven. Bead embroidery is characteristic of *Mbayá-Caduveo* and *Chamacoco* belts. The ancient *Mbayá* woolen belts were not only covered with embroidered blue beads, but were also studded with large brass plates; some elegant persons attached large bells to their belts (Sánchez Labrador, 1910–17, 1:281). Woolen belts are rarely worn by women, who generally are content with a leather belt (*Mataco*) or a simple cord.

Pilcomayo River Indians, who are otherwise unclothed, may now and then be seen wearing broad fringed skin girdles, which are said formerly to have been used only during war or at dances. These are frequently studded with large real or imitation Spanish coins.

Footgear.—The Chaco sandals bear a strong resemblance to those of the Andean region. The sole is held to the foot by a leather strap which encloses the heel and by a thong which runs around the instep and passes between two toes (pl. 58, *c*). The *Tsirakua* and *Morotoco* alone in South America wear rectangular wooden sandals. In general, however, the Indians only put on their sandals when they have to step on hot soil or cross a thorny tract. In similar circumstances the *Toba*, *Lengua*, and *Macá* may cover their feet with crude moccasins made of a piece of skin tied in front and laced along the instep (pl. 58, *b*). To penetrate a thicket, some Indians wear leggings of raw cow or deer hide.

Protection against the sun.—When traveling on horseback, upper class *Mocoví*, *Abipón*, and *Mbayá* women protected their complexion from the sun with a bunch of rhea feathers, which they somehow balanced on their shoulders.

Old *Mbayá* men wore basketry or feather visors to shade their eyes from the sun.[34]

Bags.—A little bag, slung across the shoulder, to carry pipes, scarification needles, and string is part of the traditional outfit of most Chaco Indians. These bags are generally made of caraguatá fibers in a netted or looped technique; woolen bags are knitted, though the best specimens are finger-woven.

Men's ornaments far exceed women's in variety and number. Women often wear only a simple necklace or some unpretentious bracelets.

Feather ornaments.—The *Chamacoco* are the only Chaco Indians whose featherwork compares with that of the Amazonian tribes. The scarcity of birds with bright plumage, however, reduces feathers

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[34] Sánchez Labrador, 1910–17, 1: 284, "Otros llevan esta visera de pluma o de dos alas pequeñas de algun pájaro."

(mostly rhea and heron) to a secondary role in the ornamentation of the Pilcomayo natives (fig. 32, *c*).

Feathers used in adornments are often dyed red or pink or are artistically cut with notches and stepped edges. The ancient *Guaná*, *Mbayá*, and *Mocoví* were familiar with tapirage (see p. 265). *Chamacoco* tied or glued small feathers to larger ones.

Beadwork.—Beads of shell and, in post-Columbian times, of glass are strung into necklaces or are sewn as spangles on textiles and even on solid objects—for example, on rattles. Here again, Andean influences may be surmised. The *Pilagá*, *Ashluslay*, *Lengua*, and probably others make elaborate beadwork bands by threading glass beads on a simple loom, an art which the Indians learned from the missionaries, who introduced beads into the Chaco. These bands are made, according to size, into necklaces, pendants, bracelets, rings, and small pouches (pl. 57, *a*, *c*) to hang from the neck as ornaments. Beads of different colors are combined into simple geometrical patterns, such as lozenges and triangles.

Head bands, hair fillets, and bags as a rule are embellished with tassels.

Headdress.—Often the headdress consists of a simple rhea or egret feather or a tuft of feathers mounted on a stick, which is fixed in the queue or passed through a fillet over the forehead. The Pilcomayo River Indians occasionally wear diadems made of a row of feathers fastened to a string or a narrow fillet.

The classic *Chamacoco* headdress is a wide band of bright feathers combined into a mosaic of colors. Though the feathers seem to be fastened to a tight net, actually they are tied to several individual strings woven into a single fabric by transverse strings. Some of these frontlets are wide enough to be called "feather bonnets."

The distinctive headdress of men in the southern tribes (*Mataco*, *Toba*, *Pilagá*, *Macá*, *Lengua*, *Ashluslay*) is a red woolen band bedecked with shell disks or glass beads arranged into simple geometrical figures (triangles, lozenges) and fringed with natural (spoonbill or flamingo) or dyed scarlet feathers sewn along the upper edge (pl. 57, *g*). These frontlets are generally made of belts fitted to the head with the fringed ends falling down the back. The *Mataco* use frontlets of jaguar skin (pl. 57, *h*).

Warriors, hockey players, and dancers cover their heads with a red hair net (fig. 30; pl. 57, *f*), knitted in a macramélike technique and studded with shell disks. Such caps are sometimes made entirely of beads strung on a netlike foundation.

The ancient *Toba*, *Abipón*, and *Mbayá* covered their heads with bird skins to which they fastened open wings, like a Valkyrie helmet. They often attached a toucan beak to their woolen head bands.

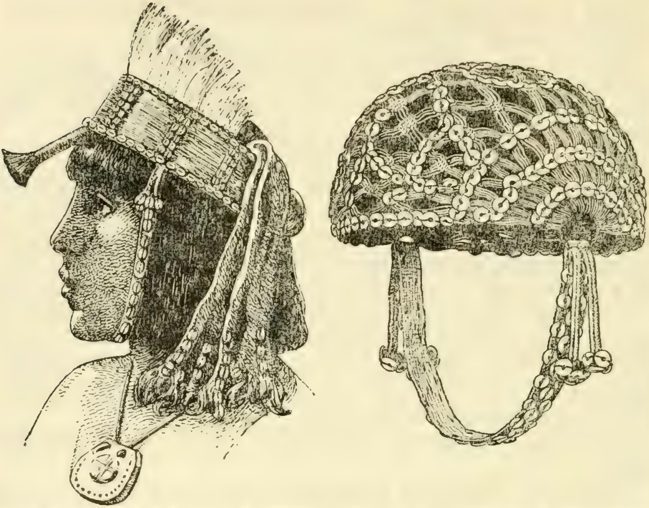

FIGURE 30.—*Lengua* and *Choroti* headgear. *Left: Lengua* Indian with head ornament and feather tuft. A whistle hangs from his neck. (After Hawtrey, 1901, fig. 2.) *Right: Choroti* hair net with red chin strap of woolen yarn, and snail-shell spangles (about ⅖ natural size). (After Rosen, 1924, fig. 46.)

Many Indians push under their frontlets a brush of false hair or of black feathers trimmed like hair, which stands erect or droops over the forehead (figs. 30; 32, *d*). This is an imitation of the natural tuft of hair which is drawn from the top of the head and tied into a small brush. Before a battle, the *Toba* and other Pilcomayo River Indians fix in their head band a thread cross to which they ascribe some magic influence.

Toba children weave simple crowns of palm leaves though their tribe is ignorant of basketry (pl. 57, *i*). *Mataco* and *Toba* youths make themselves diadems with the painted backbones of fish.

The large-brimmed straw hats of the *Mbayá-Caduveo* are copied from European models.

Ear ornaments.—The large wooden plugs or disks which both sexes insert into the distended ear lobes are among the most typical Chaco ornaments. The ear lobes, which may almost reach the shoulders, are progressively distended from childhood on by first inserting straws or thin pegs and later larger plugs. These earplugs, some 3 inches (7.5 cm.) in diameter, are painted, fire engraved, mounted with brass plates, or studded with shell disks. *Lengua* shamans glue mirrors to the front surface of their plugs in order to see the reflection of the spirits. The ancient *Abipón* wore in their ear lobes small pieces of cow's horn, wood, or bone, a woolen thread of various colors, or a little knot of horn.

Formerly, *Vilela*, *Abipón*, *Mocoví*, *Toba*, and *Mascoi* women forced into the ear lobe a narrow, tightly spiraled strip of palm leaf, which gradually distended it to large proportions. Even recently some old *Chorotí* and *Toba* could be seen with their ear lobes reduced to a thin ring of flesh, but nowadays the fashion has been altogether abandoned.

The *Chamacoco* do not practice this deformation and only pass through the lobes feathered sticks or cords with feather tassels, triangular shells, or deer hoofs hanging from the ends. Indians who have been exposed to European contact wear silver (*Mbayá*) or glass bead (*Toba*, *Pilagá*, and others) pendants. The silver pendants of the ancient *Mbayá* were cut in the shape of crescents or animals. Sometimes they inserted in the ear lobe a tin tube or a reed full of urucú and decorated at the front end with a brass disk (Sánchez Labrador, 1910–17, 1:281). *Mbayá* men attached a chain of palm-nut rings from ear to ear across the back of the neck. This rare ornament was also worn by the *Huari*.

Nose ornaments.—The *Mocoví* were the only Chaco Indians to thrust a stick through the perforated septum of the nose.

Lip ornaments.—The ancient *Lengua* (Tongue), ancestors of modern *Macá*, received their name because of a semicircular wooden ornament worn in a long cut in their lower lip which resembled a second tongue sticking out of the chin (Azara, 1809, 2:150). A similar wooden lip plug was used by the early *Mascoi*, but neither their descendants, the modern *Lengua*, nor the *Macá* remember wearing a labret. *Chamacoco* men formerly passed a T-shaped reed 3 inches (7.5 cm.) long through their lower lip.

Wooden lip plugs enclosed in a silver plate and labrets of silver or brass were distinctive men's ornaments among the *Guaicuruan* tribes (*Guachí*, *Payaguá*, *Abipón*, *Mocoví*, *Mbayá*,[35] and also the *Guaná*). Wooden *Payaguá* labrets were as much as a palm long. *Abipón* boys had their lips perforated at the age of 7; *Payaguá* boys when they were about 4 years old. The operation was performed with a sharp reed or, in post-Columbian times, with a red-hot iron (*Abipón*).

The *Mocoví* passed feathers into a series of holes punctured across their cheeks from nose to ears so that "they looked as if wings were growing on their faces" (Baucke, 1870, p. 246). Often they wore in their lower lip a rhea feather instead of a wooden plug (pl. 55).

Necklaces.—Chaco Indians set great value on necklaces of small round disks made of snail shells (*Megalobulimus oblongus.*) (pl. 53). As the shaping and perforation of the disks entails time and patience, the longer necklaces—some measure from 40 to 65 feet (12 to 20 m.) and even more—rank as highly prized possessions. Some articles are valued in terms of necklaces of a certain length, which in such cases play the part of money. Unfortunately, information on this subject is scant.

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[35] The *Mbayá* also wore labrets of wood, bone, or fish bone (Sánchez Labrador, 1910–17, 1:281).

To display wealth, men sling across their chest several bunches of snail-shell necklaces tied together with red woolen strings with tassels at the extremities.

A necklace popular among the *Chorotí*, *Ashluslay*, *Toba*, *Pilagá*, *Lengua*, *Angaité*, and others consists of a row of rectangular pieces of mussel shell with both lateral edges slightly concave and the surfaces, which are very much like mother-of-pearl, decorated with a series of half-drilled holes.

The broad, showy beadwork collars are fashionable only in tribes that, through contact with missionaries, are abundantly supplied with European beads. Many *Mataco* and *Pilagá* tie round their necks a leather collar or a woolen band studded with shell disks. Both *Mbayá* and *Mocoví* made the tin and silver plates acquired from the Spaniards into tubes and pendants. The silver crescents and other jingles which the *Mbayá-Caduveo* women wear around the neck are shaped after ancient wooden prototypes used in pre-Columbian days.

Although they were occasionally worn by the *Mbayá*, today only the *Chamacoco* wear feather collars, which they make of heron feathers.

Simple necklaces of seeds, animal teeth, or pieces of straw are rarely worn today, but still can be seen now and then.

Pendants.—*Pilagá*, *Ashluslay*, and *Macá* men often suspend from their neck a pair of beadwork pendants with a simple geometric design and a row of tassels along the lower edge. *Mataco* women wear cruder netlike pendants in beadwork. *Mbayá* noblewomen had tufts of yellow feathers falling over their breasts and backs from a necklace.

Armlets and bracelets.—As a rule, no ornaments except an occasional strip of palm leaves are worn around the upper arm. The *Mbayá*, however, tied around their arms a feather band or a row of metal plates. The *Mbayá* bracelets were made of beads, of small metal plates, or of leather studded with beads and with fringes trimmed with beads and small metal tubes (Sánchez Labrador, 1910–17, 1:282). Modern bracelets are generally either strips of skin studded with brass plates or narrow bands of bird skin. Most women in the Pilcomayo River area tie around their wrists a deerskin strap with the hoofs of the animal left as an ornament. Such bracelets are said to possess magic virtues and now and then are converted into knuckle dusters when their owner challenges some rival (fig. 32, *f*).

Waist ornaments.—The feather belts of the *Chamacoco* and also perhaps of the *Mbayá* consisted of rows of feathers (from a kind of stork) mounted on a string or of feather tassels hanging from a cord. In the Pilcomayo and Bermejo River areas shamans and dancers (*Mataco*, *Ashluslay*, and *Macá*) participating in magic ceremonies don a sort of skirt made of rhea feathers.

Leg ornaments.—Broad feather bands, attached under the knees, were among the most conspicuous *Mbayá* ornaments. Men of the southern Chaco tie around their ankles a couple of rhea feathers twisted around a caraguatá string. This ornament is regarded as a powerful protection against serpents, which, fascinated by the feathers, strike at them rather than at the wearer's foot.

Rings.—It has become fashionable among the acculturated Indians to wear rings made of segments of the tail skin of lizards or iguanas.

Hair styles.—The custom, common to both sexes in many southern *Guaicuruan* groups (*Payaguá*, *Mocoví*, *Abipón*), of removing their hair so as to leave a bald furrow running back from the forehead (pl. 56) was responsible for the name *Frentones* (Those with a Big Forehead) by which the Spaniards first designated them. A symbolic value was attached to this hairless patch, and even newborn *Abipón* babies had their forehead shaved by a shaman.[36]

Among the northern *Guaicurú*, hair style indicated an individual's social status. Uninitiated boys wore two concentric crowns of hair and a central tuft; warriors, a crescentic crest extending from ear to ear, or a crown of hair around their shaved head. After puberty, *Mbayá* women shaved their heads, leaving a crescentic band of evenly cropped hair on top, which was smeared with urucú. *Guaná* women, imitating the *Mbayá*, cropped the hair on the forehead from ear to ear, but wore it long and gathered into a queue at the nape of the neck. *Guaná* men shaved half of the head, or sometimes left only a tuft of hair.

A monastic tonsure was typical of the pagan *Abipón* men, but once in the missions, they let their hair grow and twisted it into a queue. A group of *Mataco* was called *Coronado* because of their tonsure, a fashion which they may have borrowed from the *Chiriguano*.

Among the Pilcomayo and Bermejo River Indians, men trim their hair across the forehead, leaving a lock over the ears, but allow it to fall down behind, where they tie it with a tasseled string or wrap it with a fillet into a rigid queue (*Chamacoco*). They also gather the hair on the forehead into a tuft which emerges from under the frontlet. All women cut their hair over the neck and wear bangs.

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[36] The *Payaguá* shaved with a shell a band of hair "de entrada a entrada que en los grandes es ancha como de 4 dedos" (Aguirre, 1911, p. 362), and in Rengger's time wore three braids, often tied over the head in a big topknot.

In many tribes (*Chorotí*, *Ashluslay*, *Mataco*, *Toba*, *Mocoví*, *Abipón*) the hair was groomed with a brush of peccary bristles or anteater hair or simply of roots and twigs. Nowadays combs, either carved like those of the *Chiriguano* out of a single piece of wood (*Mataco*, *Chorotí*) or composed of bamboo splinters held together with threads (*Mataco*, *Chorotí*, *Ashluslay*, *Pilagá*), are more widely used than is the hair brush, which may be regarded as a survival (fig. 32, *e*). Like Colonial Spanish ladies, 19th-century *Mbayá* women stuck in their hair large, beautifully wrought combs of horn with conventionalized horses cut along the upper edge.

Depilation.—Throughout the Chaco, both sexes feel distaste for facial hair. The *Abipón*, like many other Indians, believed "that the sight of the eye is deadened and shaded by the adjacent hair," and often attributed their failure to find honey to the growth of their eyebrows or eyelashes. The task of removing the body hair fills the Indians' leisure hours. The *Abipón* rubbed their face with hot ashes, after which an old woman depilated them with a pair of flexible horn tweezers. Formerly, most Chaco Indians plucked their body hair by means of two bamboo pieces or two shells. Today all of them use small tweezers made of old tin cans.

Tooth deformation.—In the district of Miranda, the *Tereno* and *Guaná*, who have been subjected to Negro influences, file their incisor teeth to give them a sawlike appearance.

Tattooing.—Tattooing is common to all Chaco tribes except the *Chamacoco*. As a rule, women are more profusely tattooed than men (*Pilagá*, *Abipón*, *Mocoví*, *Payaguá*, *Ashluslay*, *Vilela*), and noblewomen among the ancient *Abipón* could easily be recognized by the number and variety of the patterns tattooed on their faces, breasts, and arms. An *Abipón* woman with only three or four black lines on her face was either a captive or of low birth. On the other hand, noble *Mbayá* women had squares and triangles tattooed on their arms from the shoulders to the wrists, but only exceptionally wore facial tattoo, for this indicated low rank. Plebeian women generally had a series of perpendicular lines tattooed on the forehead (Sánchez Labrador, 1910–17, 1:285).

Among other Chaco tribes, a child, especially a girl, was first tattooed when 6 or 7—among the *Mbayá* between 14 and 17—but new motifs were added in the course of years. The complex patterns on *Pilagá*, *Mocoví*, *Abipón*, and *Payaguá* women were completed long after puberty when they were about to marry (fig. 31). The artist, generally an old woman, first traced the outlines of the design with charcoal and then punctured the skin with a small bundle of cactus thorns dipped

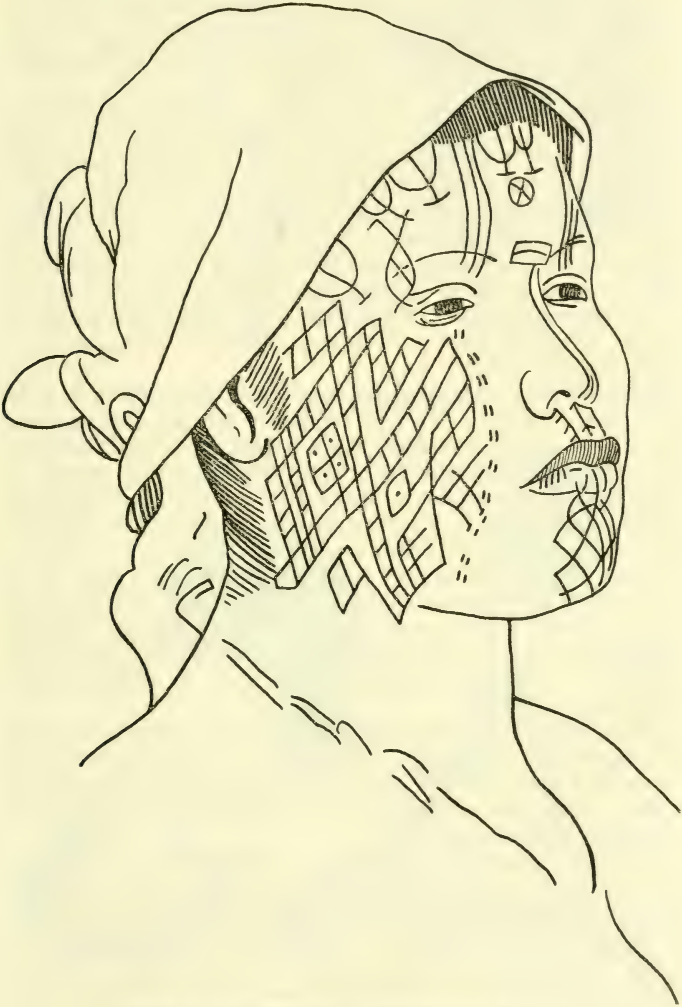


Figure 31.—*Pilagá* tattooing. (Design by John Arnott.)

in a mixture of soot and saliva (pls. 55, 68). The *Mbayá* used a fish bone and genipa juice or the ashes of the palm cabuigo. If an *Abipón* girl betrayed her pain by a gesture or a groan, she was taunted for her cowardice. After the operation, she had to remain shut in her father's hut for several days and, like *Mocoví* girls in similar circumstances, was permitted to eat neither meat nor fish.

Red and black motifs generally alternate. Though each tribe has its particular style, an individual has relative liberty in the choice and disposition of the traditional patterns. The simple *Mataco* designs, such as circles and parallel lines, contrast sharply with the intricate geometric figures which cover the whole face of a *Pilagá* woman. (See fig. 31.) The *Guaicuruan* tribes have given to the art a far greater importance than any other group in that area and even in the whole of South America. A fully tattooed *Abipón* or *Pilagá* woman of the older generation had her whole face covered with geometric designs combined with extraordinary skill and a fine sense of proportion.

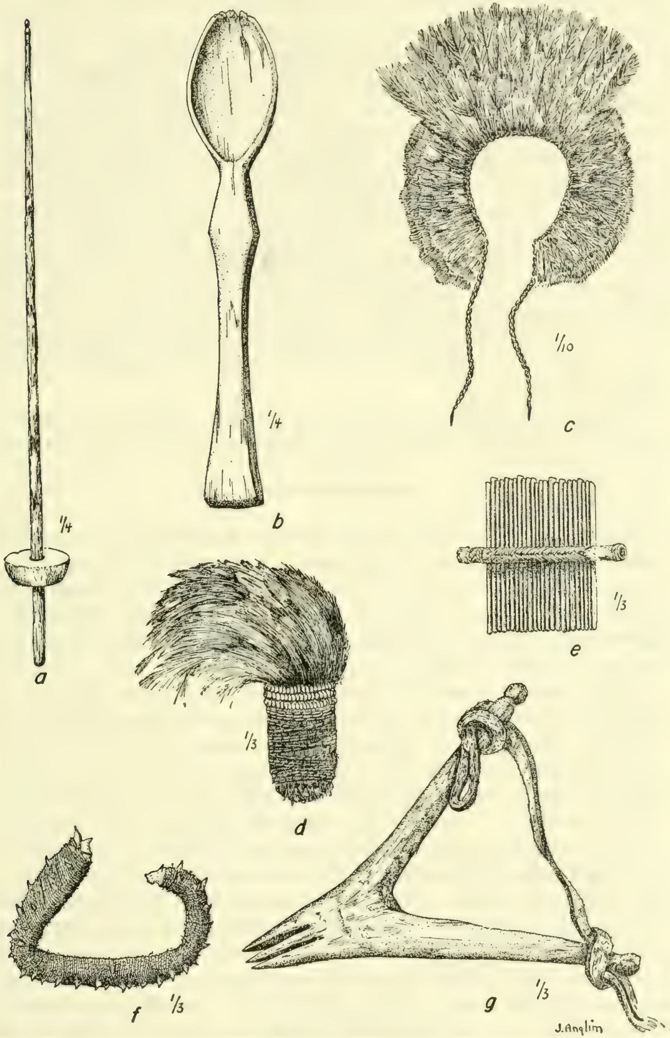
Body painting.—Painting has some ritual implications in most Chaco tribes (pl. 54). Warriors and hockey players are always decorated from head to toes with stripes and patches of black and red. Women who are menstruating or who have had sexual intercourse smear their cheeks with urucú. But the Indians also paint themselves for more trivial occasions, such as an ordinary dance or in daily life, when they seek to improve their appearance.

Urucú (*Bixa orellana*), the favorite pigment, grows only in the northern parts of the Chaco and is bartered to the southern tribes as natural seeds or in the form of cakes. These are prepared by first diluting the pigment with water and then boiling the liquid until only the thick dregs remain, to which honey is added (*Mbayá*, *Chamacoco*).

Black is made in the south with powdered charcoal and in the north (*Guaná*, *Mbayá*, *Chamacoco*) with genipa juice. As the latter is colorless when fresh, the *Caduveo* mix it with soot so as to follow the patterns as they trace them on the skin. Chaco Indians also use soot or mineral colors (hematite).

The *Chorotí*, *Ashluslay*, *Mataco*, and probably other tribes stamp simple decorations on the skin with flat pieces of carved wood or with bamboo splinters notched along the edges. The *Mbayá-Caduveo* outlined their involved designs with a bamboo stencil and filled the intervening spaces by means of a pad of cotton dipped in the dye. Star and sun motives in white were scattered on the black and red background by blowing palm flour through stencils cut in a piece of leather.

The intricate combination of motifs which characterized *Mbayá* body painting was perhaps the highest expression of that art in South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J. Anglim

FIGURE 32.—Chaco manufactures. *a, Mataco* spindle shaft with whorl; *b, Mataco* wooden spoon; *c, Chamacoco* feather headdress; *d, Ashluslay* feather tuft; *c, Pilagá* stick comb; *f, Pilagá* bracelet used by women in boxing; *g, Toba* spur. (Métraux collection, American Museum of Natural History.)

America (pl. 68, *top*, *center*). Though related to the design style on their pottery, the body patterns were treated more freely. The decorative elements—triangles, steps, volutes, undulated lines, triangles, frets—were grouped capriciously. A peculiarity of the *Mbayá* style was the asymmetry of the motifs painted on opposite sides of the face. The motifs stood out in black against a red background. The white stars mentioned above were restricted to men. Women formerly painted only their faces and arms whereas men covered their bodies with designs or smeared them with wide red or black stripes that were either straight or undulated. *Guaná* slaves were not permitted to use urucú or white flour, and could only decorate themselves with charcoal powder; on certain occasions, however, their masters allowed them to display sophisticated patterns. It was unbecoming for old women to paint themselves, but they took care that others did not neglect their appearance. The *Chamacoco* still try to imitate the complicated patterns of the *Caduveo.*

The body paintings of the Pilcomayo and Bermejo River tribes consist mainly of dots, patches, and stripes around the mouth or the nose.

TRANSPORTATION

Among the foot Indians, transportation of household goods is the task of women, who carry heavy loads in huge netted bags (pl. 60, *a*) suspended by a tumpline (pl. 51). The *Toba* and *Pilagá* carry their household furniture wrapped in their large rush mats. Modern Indians of the Pilcomayo and Bermejo River region all have adopted the donkey as a pack animal.

Abipón women placed all their possessions, children, and pets in large peccary-skin bags suspended from the backs of the horses which they rode. Mats and tent poles were also placed on top of these bags.

Boats.—As Chaco rivers are not easily navigable, only the tribes living on or near the Paraguay River use canoes (*Lengua*, *Sanapaná*, *Mbayá-Caduveo*). Until the beginning of the last century, the *Payaguá*, who were among the most famous river pirates of the continent, made the shores and islands of this river their home and spent most of their life on the water. Their dugout canoes were 10 to 20 feet (3 to 6 m.) long, 1½ to 3 feet (0.45 to 0.9 m.) wide, and had a sharp bow and stern. Some large war canoes accommodated up to 40 men (Dobrizhoffer, 1784, 1: 132). A crew of 6 or 8 standing at the stern could attain a speed of 7 knots. The paddles were 9 feet (2.7 m.) long and very pointed. In the 18th century, some *Mbayá* groups allied to the *Payaguá* gave up the horse to become river nomads.

The *Mepene*—perhaps an *Abipón* subtribe—seen by Schmidel in the 16th century (1903, pp. 167–168) were also canoe Indians. In one battle the Spaniards destroyed 250 of their boats, some of which could carry 20 people.

The conquistadors (Hernández, 1852, 1:577), praised highly the boatmanship of the *Guachí* (*Guaxarapo*), whose small craft, built to accommodate no more than two or three men, could outdistance any Spanish sailing vessel.

Some inland tribes, such as the *Pilagá* and *Toba*, occasionally take short trips across flooded areas in their large beer troughs.

When the *Mocoví*, *Abipón*, and *Mbayá* had to cross a river they made bullboats (pelotas) of square deer or cow hides, with up-curved edges, in which old people, infants, and their belongings could be ferried over. A swimmer towed the bullboat with a leather thong, which he held in his mouth; when the current was strong, he would grasp the tail of his horse with one hand and drag his boat with the other. These Indians also built rush-mat rafts.[37]

MANUFACTURES

Basketry.—Only the *Arawakan* tribes and the *Mbayá*, who were influenced by them, had developed basketry. The latter made a few twilled baskets and large-brimmed hats to sell to their Mestizo neighbors. Among the Pilcomayo River tribes *Toba* boys plait crude frontlets of palm leaves. Coiled baskets have been collected among the *Mataco*, who, however, may have acquired them from their Mestizo neighbors.

Mat Making.—To make roof and wall mats for their huts, the *Mbayá* fastened together long, dried bulrushes with six or eight twined strings, the ends of which were braided together along the edges of the mat to reinforce them. (See Sánchez Labrador, 1910–17, 1:269.) The *Pilagá* and *Toba* make similar mats. The bulrushes, which have been pared to an equal length, are laid across two horizontal strings stretched between low posts and then are twined at the edges with cords. Aguirre (1911, p. 352) observes that *Payaguá* mats were not woven but "sewed."

Netting and needle-looping.—Carrying nets and bags of all sizes are both indispensable to and typical of the half-nomadic collectors of the Chaco (pl. 57, *b;* pl. 60, *a*, *d*, *e*). As these objects deteriorate rapidly, women are constantly occupied with making thread, netting, or needle-looping. The development of techniques of string work was favored by the abundance of the Bromelia which provide excelllent raw material. The caraguatá (*Bromelia* sp.) are uprooted with a forked stick and the leaves sawed off with a toothed piece of wood. The fibers are separated from the fleshy substance by either of two methods. In the first, the fibrous strips are detached with the fingernail, then soaked in water for a day or two (some kinds must then be pounded), and finally, held against the foot and scratched with a shell or a wooden knife. In the second method, fresh caraguatá leaves are pulled back and forth through a loop attached to a vertical stick, until the fibers are freed.

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[37] Oviedo y Valdés (1851–1855, 1: 193), who never was in the Río de la Plata region, mentions what seems to be the double paddle among the *Agaz* (*Payaguá*). Nordenskiöld has made much of this statement although it obviously must be erroneous since no author who describes the *Payaguá* makes any reference to this type of paddle.

To make a strand, a woman takes a few fibers from a dry bundle and with the flat of her hand rolls them on her thigh, which is smeared with ashes. She always makes two strands simultaneously and twists them together into a string. Several such strings may later be rolled together into a stronger cord.

Some bags are, like fishing nets, made with reef knots or, more exceptionally, with sheet knots. For the great majority of bags and string work, the fabric consists of interlaced loops. The various stitches are illustrated in figure 33. The first row of loops passes around a horizontal string stretched between two vertical sticks. The woman who sits in front of this rudimentary loom builds up the following rows of loops by hand, or, when the stitch is elaborate, with an eyed needle (pls. 61, *bottom;* 63). The simplest fabrics have one or two open half hitches in the same loop; the most complicated have the appearance of close crochet. Bags of wool more commonly than those of string are made in the technique of interlaced loops, with the only difference that the fabric is tighter.

In netting, mesh sticks are used only for fish nets; carrying nets are built up around a loop attached to a stick and the size of the meshes is estimated by eye.

The Pilcomayo River tribes often knit small woolen bags with two or even four needles. Where they cannot get metal needles, they use long cactus thorns. The knitting stitches are distinctly European and not Peruvian.

Most of the bags and carrying nets of the Chaco Indians are enlivened with geometrical patterns produced by alternating yarns of different colors. The best bags and pouches of the *Pilagá* and *Ashluslay* are threaded with beads.

Weaving.—Early descriptions of the Chaco tribes contain references to women's clothes and to blankets made of caraguatá fibers.[38] Garments of this material no longer are made in most of the Chaco, but the *Chamacoco* and *Moro* are said to use skirts and cloaks of fibers. From the little available evidence, it seems that these gar-

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[38] The *Guaicurú* "Traen muchas mantas de lino que hacen de unos cardos, las cuales hacen muy pintadas" (Hernández, 1852, p. 566).

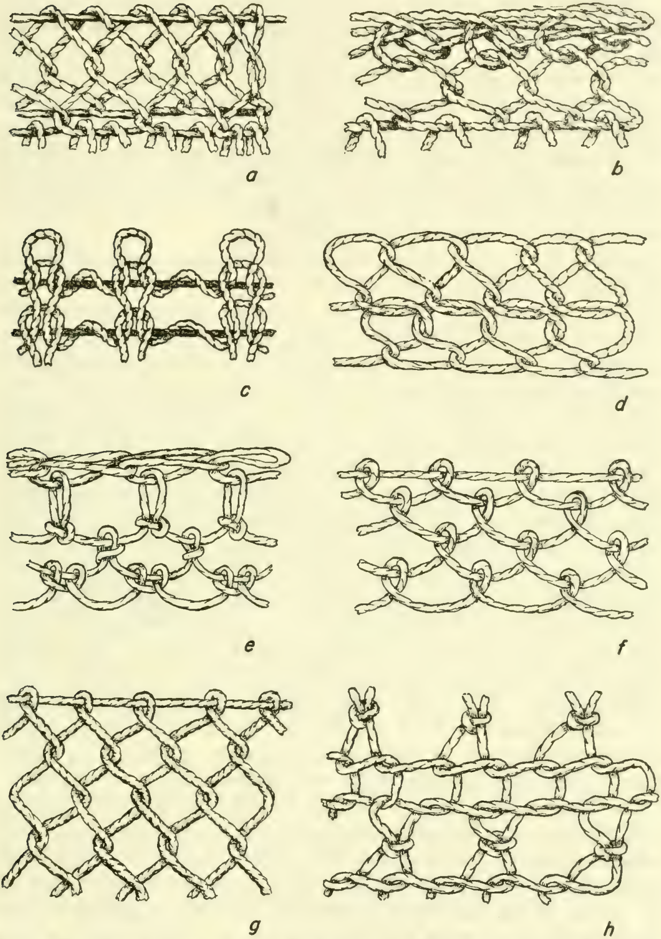

Figure 33.—Chaco netting and lacing techniques. *a, Mataco* lacing; *b, Mataco* lacing; *c, Mataco* lacing (*a–c* redrawn from Max Schmidt, 1937 a); *d, Mataco* lacing; *e, Ashluslay* netting; *f, Mataco* lacing; *g, Ashluslay* lacing; *h, Ashluslay* combination lacing and netting (*d–h,* redrawn from Nordenskiöld, 1919, fig. 60.)

ments are twined in a technique identical to that of the mosquito flaps used by the same Indians.

The art of weaving was probably introduced into the Chaco from the Tropical Forest area by Indians who cultivated cotton and had the vertical loom. The *Arawakan Guaná*, who were famed as skillful weavers and who still provide their Neo-Brazilian neighbors with textiles, appear to have been the most likely agents for the pre-Columbian diffusion of weaving. Later, Peruvian influences were felt throughout the Chaco, as evidenced by the distribution of various techniques which have survived up to the present and are identical with those employed in the Coastal cultures of ancient Perú (e. g., kelim technique, compound cloth, tie dyeing).

Before European contact, cotton was the only material used by the Chaco Indians for weaving, though they may have received small amounts of wool from the Andean Indians. In the past the Pilcomayo and Bermejo River tribes spun a variety of cotton (*Gossypium peruvianum*), which today still grows wild, and was reputedly better than the cotton raised nowadays. Sánchez Labrador (1910–17, 1:184) states that the *Mbayá* had a native cotton, somewhat different from the European variety. In the north and wherever White influence has come late, the Indians continue to spin cotton. The *Kaskihá* card cotton with small bows, a device of limited distribution in South America. The Pilcomayo River and Bermejo River tribes who have large flocks of sheep have almost entirely given up the cultivation of cotton, but some *Mataco* still use it for their fabrics. The Indians shear sheep with ordinary knives and leave the wool on platforms or bushes to be cleansed by rain and bleached by the sun. The women tease it with their fingers before spinning. The spindles have a shank with a knob at the proximal end to which the thread is attached by a half hitch. The whorl is a pottery or wooden disk, or a small calabash or fruit (fig. 32, *a*). The spindle is set in motion and dropped to turn by itself either in the air (pl. 62) or in a small plate.[39] The yarn is spun right and twisted left.

The loom is made of two vertical forked branches with one cross pole resting on the fork above and another tied near the ground. The warp threads are passed around these two bars, but at each turn are looped back over a cord which is strung horizontally between the two bars. When the fabric is finished, the cord is pulled out and the piece of cloth opens without cutting.

The designs are obtained by alternating the colors of the warp threads. The weaver's only tools are a wooden sword—which among the *Mbayá-Caduveo* is carved into the form of a horse—and a bone or wooden dagger. When the fabric is wide, the weft threads have to be battened down with a sword in small sections clear to the end. The shuttle is a piece of bamboo; but often the ball of thread is used instead. With this simple loom the Indians produce blankets, ponchos, and belts decorated with geometric colored patterns (fig. 38). Belts and ponchos of the *Pilagá* and *Ashluslay* are compound cloth with a pattern in warp float over three wefts under one.

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[39] Azara's (1809, 2:125) description of the *Payaguá* spinning suggests that the women rolled their long spindles on their thighs.

This loom is also used for finger-weaving. By this method the *Mataco* and *Toba* make belts and bags which (pls. 60, *c;* 61, *top*) have more elaborate designs than most ordinary fabrics.

Tapestry in the kelim technique, so typical of ancient Peruvian textiles, is used in a few instances to make small bands worn as necklaces.

The Pilcomayo River Indians plait narrow fillets by crossing eight yarns.

Dyes.—Black and white are generally natural-color wools; red is obtained from the cochineal that develops on cacti[40] (*Mbayá*, *Mocoví*, *Lengua*) or from a crocuslike flower; brown from the bark of the tusca tree (*Acacia moniliformis*) or from guayacán (*Caesalpinia melanocarpa*) seeds;[41] yellow from the flowers of *Euglypha rojasiana*.[42] Tie-dyeing—a method of Andean origin—is also known to the Pilcomayo River Indians but is rarely used.

Pottery.—All Chaco Indians, even those who are essentially nomadic, have pottery. There is great homogeneity in the shape and quality of the ceramics throughout the area, though a more refined pottery style is to be found in the northern marginal area among the *Arawakan*-speaking tribes and their close neighbors, the *Mbayá*. The *Mbayá-Caduveo* originally had simple and crude vessels, like those of the modern *Toba*, but nowadays make not only the best ceramics in the Chaco, but some of the finest in South America. The change in style and technique was brought about by the *Guaná* women whom these Indians kept as wives or serfs. As a result of their close contact with other *Mbayá* bands, the *Kaskihá* make vessels which, in spite of a certain crudeness, resemble those of the *Caduveo* and other *Arawak-Mbayá* groups. The influence of the *Chiriguano* and of Andean Indians is clearly noticeable in the shape of the ware of the *Mataco* and of some other Pilcomayo River tribes.

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[40] They gathered the larvae in a vessel and pounded them.

[41] The seeds are crushed and boiled. The threads are immersed in the decoction.

[42] On the dyes of the *Mbayá,* Sánchez Labrador (1910–17, 1:169) gives the following information: "Dan un tinte negro muy bueno con una tierra azulada que llaman limcutege, a la cual mezclan las astillas de un palo que se llama cumatago, y que se cría por muchas partes, especialmente hacia las orillas del río Paraguay, en un lugar que en su idioma dicen, por unos arboles, odeadigo. Tambien tienen amarillo con el cocimiento de las astillas de los palos dichos, especialmente del que por excelencia nombran logoguigago, el que hace amarillo. Acanelado tiñen con la corteza de otro arbol: y encarnado con astillas de un árbol, y tambien con algunas raices. No tienen más maniobra que en la infusión de las astillas o raíces poner lo que han de teñir. Entre otras cosas suelen hacer esta. Despues de haber dado cocimiento en la dicha infusión a la lana o hilo de algodón, le sacan y sobre una estera ponen una capa de ceniza, hecha de un arbol muy fuerte, y con cuya corteza tiñen tambien colorado. Sobre esta ceniza extienden la madeja recien sacada del cocimiento; y despues la cubren bien con bastante ceniza de la misma tapándolo todo con la estera. La madeja, al sacarla de la infusión, apenas de señas del color; más, dejada una noche del modo dicho entre la ceniza, se pone de un encarnado bellisimo."

Pottery technique.—The technique of potters is identical all over the Chaco. The clay is gathered in marshy spots, pounded in a mortar, sifted through a string bag, and tempered with pulverized potsherds. The *Mataco* mix clay and temper in equal proportions. They sprinkle water on the tempered clay and knead it, removing all pebbles and hard particles. The potter first shapes a lump of prepared clay into a disk with a narrow rim, which she places on a plank, a leaf, a skin, a net bag, or even on the sole of her foot (*Mbayá*). On this foundation she builds up the vessel by adding clay coils. These coils, which have the thickness of a finger, are rolled between the palms of the hands (pl. 64). When the coil is applied, the potter flattens it between her thumb and the other fingers. After four or five coils have been superimposed, the new surface is scraped vertically with the back of a shell (pl. 64). She next scrapes the interior of the vessel far more carefully than the outer side, constantly dipping her fingers or her instrument in water. The pot is smoothed with the back of the fingers passed lightly over the wet surface. When the pot is somewhat dry the outside is again scraped and smoothed with the back of the shell or with the fingers and nails. Some tribes use a wooden or maize cob scraper instead of shells.

The finished pot is first dried in the shade and then fired for no more than half an hour in the open under a conical pile of bark or dry wood.

Pottery decoration.—In the areas of the Pilcomayo, Bermejo, and lower Paraguay Rivers ceramic decoration is very rudimentary. The potter removes the vessel from the fire and while it is still hot traces a few simple geometric motifs on its surface with a piece of palo santo (*Guaiacum officinale*), which exudes a thick rosin, or with a lump of rosin. The designs consist of crude dots, circles, or lines. The mouth of a water jug sometimes bears a series of small impressions made with the thumbnail. A few cooking pots are ornamented with rows of small clay pellets put on the surface when the clay is wet (*Mataco*, *Chorotí*). The *Mataco*, immediate neighbors of the *Chiriguano*, more often decorate their pottery with fingernail impressions or with crude pastillé ornaments than do the other tribes of their area.

The *Mbayá-Caduveo*, *Guaná*, *Kaskihá*, and the ancient inhabitants of the Paraná Delta are the only South American Indians who decorated their pottery by pressing cords into the wet clay. They painted the spaces between the motifs with red and black. Red was obtained by applying an iron oxide (hematite) to the clay before firing and, as among the other Chaco tribes, black by smearing the rosin of palo santo on the hot surfaces. The cord marks were filled with white earth when the vessel was cold. Vessels employed as containers for precious objects were decorated with pieces of cloth and shell disks sewed on the walls of the vase through a set of holes made during construction of the vessel.

The *Mbayá-Caduveo* and *Guaná* ceramic decoration was quite elaborate (fig. 34). Besides Greek frets and other simple geometric patterns, it consisted of various combinations of curves, volutes, and designs that suggest conventionalized foliage. Primarily this decoration is based on ancient Andean motifs, but it also betrays European influences. *Payaguá* pottery was also painted with designs which seem to be akin to these *Mbayá* pots.

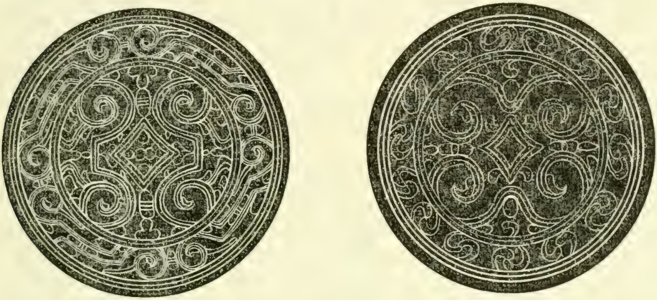

Figure 34.—*Mbayá-Caduveo* painted pottery plates. (Redrawn from Boggiani, 1895, figs. 16, 25.)

On some *Mataco* pots the flattened clay coils form an intricate decoration on the exterior.

Pottery forms.—Chaco pottery in general lacks variety of form. In most tribes ceramics fall into three categories: (1) plain cooking pots; (2) water jugs with a long neck, and usually two vertical handles (pl. 51); and (3) bowls. The artistic vessels of the *Mbayá*, *Kaskihá*, and *Guaná* are large basins with more or less vertical walls and rounded bases.

The water jugs, which are probably a local adaptation of the *Inca* aryballus, are carried on the back with a tumpline which passes through the handles and is prevented from slipping by a depression or groove around the body of the pot at the level of the handles. Jugs without grooves and handles are carried in a net.

Skin preparation.—The Chaco Indians employ skin to a far greater extent than do most South American tribes. Tanning, however, has remained unknown to them, in spite of the fact that the Chaco forests are exploited today mainly for the trees which are rich in tannic acid. A lengthy mechanical softening process is used only for skins intended for cloaks and skirts, an arduous task performed by women. The skins are first stretched on a frame or nailed with wooden pegs on the ground and cleansed of all flesh particles. Then the hair is scraped off with a pointed stick and the softening is achieved by folding the skin diagonally about every half inch. The creases are accentuated by pressing the smooth lip of a large snail shell along them (*Lengua*). The skin is then twisted and "its surfaces rubbed together after an application of wood ashes and water" (Grubb, 1913, p. 69). The ancient *Mbayá* rubbed skins with stones until they became soft. Among the *Choroti* and *Mataco*, skins are smeared with grease and softened by rubbing them across a split piece of wood.

To sew pieces of skin together to form cloaks, *Abipón* women passed caraguatá threads through holes made with a thorn along the edges.

For bags and pouches in which belongings are carried or stored, unworked skins of peccaries or deer, with the hair on, are commonly used. But the best bags have the hair scraped off, the edges sewn, and sometimes have their surfaces embellished with woolen embroideries, a type of ornamentation which in South America is restricted to the Chaco.

To prepare a certain kind of large bag, the Indians make a single incision around the neck of a rhea and its lower limbs, then carefully skin it. The skin is then flayed and the two lower openings tied up (pl. 58, *a*). They make tobacco pouches in the same manner of the neck skin of rheas or other birds, with embroidered edges and tassels (pl. 60, *f*). Small pouches also are made with the entire skin of lizards or iguanas.

Metallurgy.—Metallurgy was practiced in the Chaco only by the *Mbayá*. They soon learned from the Spaniards how to make ornaments adapted to their taste of silver and brass bartered for horses. They never acquired the processes of smelting or welding, but became expert in hammering and folding. They put the metal in the fire, took it out with wooden tongs, and then beat it into plates on a stone anvil with another stone. The plates were polished on a stone, burnished with a powder of sand and ashes, cut into squares or crescents with a knife or scissors, and sewed to belts or other garments. They were also folded into tubes for pendants or beads. Likewise, the *Mocoví* turned the silver or copper which they obtained from the Spaniards into jingles and pendants.

The *Mbayá* worked pieces of iron into hooks or spearheads. Modern *Mbayá-Caduveo* have smithies with bellows and iron anvils.

Trade metal was known in the Chaco long before the Discovery. Irala, crossing the Chaco in 1548, found that the *Mbayá* had silver frontlets and silver plates 3½ inches (8.75 cm.) long and ½ inch (1.25 cm.) wide, which these Indians wore on their foreheads (Schmidel, 1903, p. 249). Similar objects and even the copper tools which were so common among the *Guaraní* must have passed from Perú across the Chaco before reaching Paraguay.

Gourds.—The Chaco Indians cultivate gourds of all sizes and convert them into water bottles, bowls, dippers, spoons, and containers for storing miscellaneous small articles. Seeds, flour, and food are also kept in these containers. Gourds which are used as boxes are generally provided with a star-shaped lid cut from the same fruit and attached by a loop which closes it when pulled up.

Gourds are frequently decorated with crude and irregular burned ornaments. The designs incised on boxes, bottles, or beer bowls are more artistic. They are geometric—triangles, crisscrosses, stripes, etc.—or realistic. The latter kind represent "spirits," animals, and even geographical features treated symbolically. Some specimens have both engraved and pyrographed motifs. Small boxes are often dotted with beads affixed with wax.

Tools.—Most of the natives of the sandy Chaco plains had to import the stones for their axes from their neighbors. The stone blade was inserted into the bulging head of the wooden handle, a shafting which was retained after they received iron blades. *Chamacoco* stone axes are unique in South America: an amygdaloid or triangular blade with a somewhat bulging or T-shaped butt is lashed with string to the small end of a flat wooden club that is 5 feet (1.5 m.) long. On some the binding is smeared with wax and feather tassels are attached. The use of these axes is somewhat problematical, as the hafting is unsuited for cutting hard wood (fig. 37, *b*). The handle is obviously a digging stick or a club.

Before the Jesuits supplied them with steel axes, the *Mocoví* split tree trunks with flint wedges in order to obtain sticks suitable for making spears or bows. Giglioli (1889, p. 276) reproduces a stone chisel attributed to the *Chamacoco*. The stone, similar to a small ax, is encased between two pieces of a white wood, bound together with a caraguatá cord.

Until recently, piranha (*Serrasalmo* sp.) teeth were used everywhere as knives and carving tools. Rodent teeth, bamboo splinters, and shells served the same purpose. The *Mbayá* and *Mocoví* scraped and polished wood with the sharp edge of broken shells.

Woodworking.—See Farming and Food Preparation (pp. 261–263), and figures 35, 37, 42.

Weapons: *Bows.*—Chaco bows are carved of the hard resilient wood of palo mataco (*Achatocarpus praecox*), lotek (*Prosopis abbreviata*), quebracho (*Schinopsis lorentzii*), or urundel (*Astronium juglandifolium*). The part of the tree where the lighter outer wood meets the core is generally selected because of its greater strength and flexibility. The bow cross section varies somewhat but, as a rule, the belly is flat and the outer side somewhat round or convex. A rectangular cross section is common among the southern and central tribes; among the northern tribes it is more oval, and among the

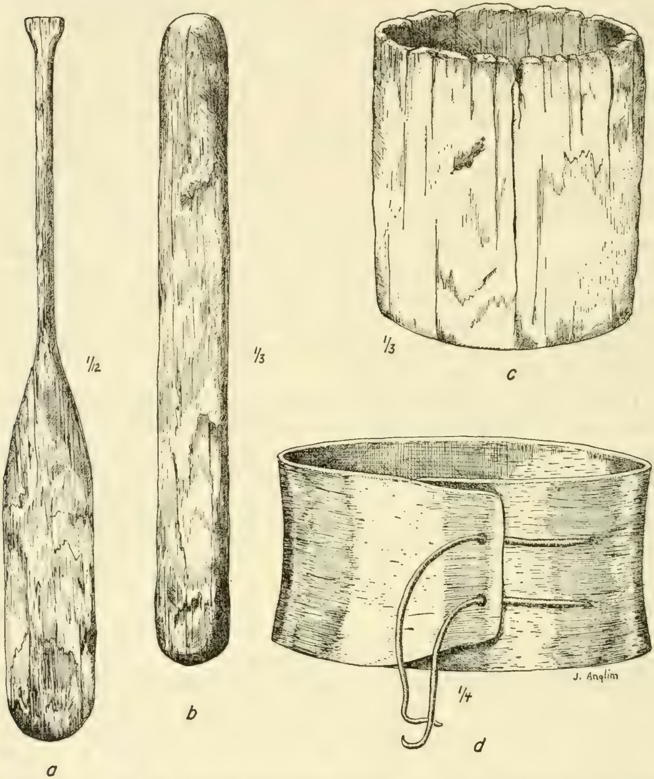

Figure 35.—*Pilagá* and *Choroti* utensils and dress. *a, Choroti* spade (redrawn from Nordenskiöld, 1919, fig. 1); *b, Choroti* pestle (redrawn from Rosen, 1924, fig. 122); *c, Pilagá* wooden mortar (Métraux collection, American Museum of Natural History); *d, Choroti* hide belt (redrawn from Nordenskiöld, 1919, fig. 31).

Chamacoco almost round. Both ends of the stave are sharpened sufficiently to prevent the string from slipping, but lack a clear-cut shoulder. Except for slightly curved extremities, the stave is nearly straight. *Chamacoco* bows are longest and measure about 6 feet (1.8 m.).

In the Bermejo and Pilcomayo River regions (*Chorotí*, *Mataco*, *Toba*, *Lengua*, *Ashluslay*), bow strings of caraguatá fiber or of twined skin or tendons occur in the same tribe. The ancient *Abipón* made their bow strings of fox entrails or of "very strong threads supplied by a species of palm" (Dobrizhoffer, 1784, 2:398). The bow string is always long enough to be partly wrapped around the bow (fig. 37, *e*, *f*). Cracked bows (*Chorotí*, *Mataco*) are reinforced with short sheaths or casings of raw leather.

In general, Chaco bows do not compare in finish to those of the Tropical Forest area.

Arrows.—Arrow points are of the same types as those of the Tropical Forest area: (1) Points for fishing and hunting arrows consist of a long sharpened wooden rod (palo mataco, quebracho, palo santo), occasionally with small barbs carved along one or both edges. Some *Abipón* arrows had a quadruple row of barbs. Formerly, a bone splinter sharpened at both ends, or the leg bone or claw of the *Canis azarae* was fastened to the wooden rod and caused a dangerous infection when it broke off in the wound (*Abipón*, *Mocoví*). (See Dobrizhoffer, 1784, 2:400, and Kobler, 1870, p. 258.) (2) War and large game arrows were tipped with sharp lanceolate bamboo splinters, which today have been entirely replaced by iron blades. Like their bamboo prototypes, these iron heads are fitted into a socketed foreshaft. (3) Bird arrows were tipped with a blunt conical wooden head. The *Abipón* used a wax head. For shooting birds, the *Mbayá* fixed a piece of gourd to the tip of on ordinary arrow. (4) Harpoon arrows, i. e., arrows with removable heads, were used by the *Payaguá* for shooting capybara (Azara, 1904, p. 365).

The *Abipón* and many other Chaco tribes set fire to enemy huts by shooting arrows tipped with burning cotton or tow.

In historic times, arrow shafts have been made of a species of reed that was imported from Europe (caña de Castilla, *Arundo donax*) and now grows wild along the rivers, but is also cultivated by the Indians. In pre-Columbian days, and occasionally even now, the Indians used suncho stems. The *Chamacoco* have no other material for their arrow shafts. The butt of a reed shaft is notched, but never reinforced with a plug. A wrapping of caraguatá fibers at both ends prevents the reed from splitting. The pared and halved quill is laid flush against the shaft and bound with thin threads which are cemented in place with wax. The *Abipón* used feathers from crows, the *Mocoví* from birds of prey. The *Mocoví* decorated their arrow shafts with red rings (fig. 36, *a–g*).

When shooting, the Indians hold the arrow between the thumb and the index finger, and pull the string with the middle and fourth fingers (*Payaguá*, *Lengua*, *Pilagá*, *Ashluslay*, *Macá*). The wrist is protected by a leather or wooden guard (*Abipón*, *Mocoví*), by a wrapping of caraguatá strings (*Toba*, *Mataco*, *Guarañoca*), or by braids of human hair (*Mbayá*).

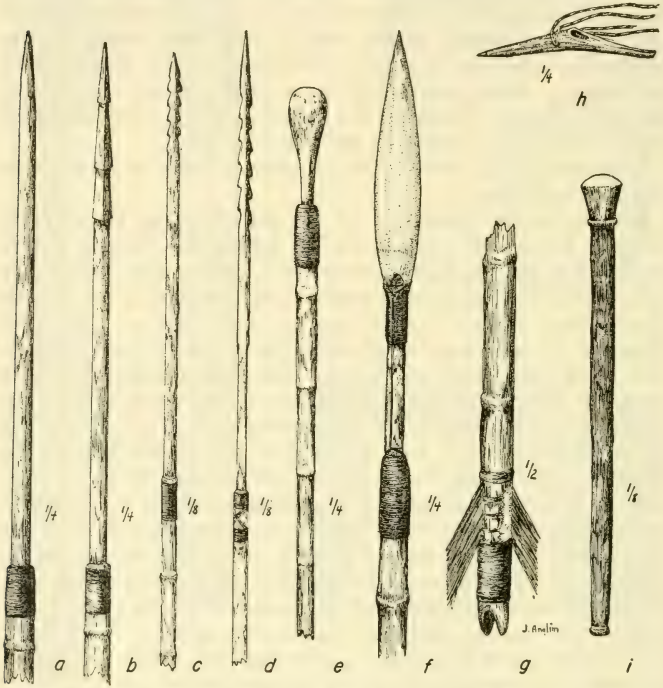

FIGURE 36.—Chaco weapons. *a–e,* Wooden arrow points; *f,* iron arrow point; *g,* arrow butt with feathering; *h,* cow-horn harpoon head; *i,* wooden war club (*h, Mataco;* all others *Pilagá.*) (Métraux collection, American Museum of Natural History.)

Quivers.—Quivers, known only to the *Abipón* and *Mocoví*, were made of "rushes, and adorned with woolen threads of various colors" (Dobrizhoffer, 1784, 2:398; Baucke, 1935, pl. 16). As a rule, the Chaco Indians carry their arrows in their hands or pass them through their belts.

Spears.—Spears are used both as thrusting and as throwing weapons by the Chaco Indians to hunt peccaries and jaguars or to fight their enemies at close range. Lances became the main weapon of the equestrian Indians who handled them with as much skill as did the Spanish cavalry. The lance shaft was split with wedges from a tree trunk, generally palo mataco, and then shaped by charring and scraping with a shell. It was straightened by rolling between two logs (*Mocoví*, *Abipón*).

Spears either were pointed at one or both ends or had a separate head of bone or deer horn socketed into the shaft. In the 18th century, spear points were generally of iron, which the Indians took pride in polishing with tallow. The original spear of the *Toba*, *Angaité*, and *Pilagá* had a lanceolate head carved from the same piece as the staff. A spear butt was generally pointed so that it could be stuck in the ground in front of the hut. The spears of the foot Indians measured from 5 to 6 feet (1.5 to 1.8 m.); those of the equestrian Indians from 12 to 18 feet (3.6 to 5.4 m.).

Javelins and harpoons.—The *Mocoví* and perhaps the *Payaguá* killed capybara and caimans with javelins provided with a separate wooden head barbed on one side like the *Yahgan* harpoons of Tierra del Fuego (Baucke, 1870, p. 264; 1935).

The *Mocoví* war javelin was identical to the modern *Mataco* fishing harpoon (fig. 37, *a*). It consisted of a shaft of light wood, a hardwood foreshaft, and a separable point made of a hollow piece of bone or the tip of a deer horn connected to the shaft by a long cord. "If an Indian," says Baucke (1870, p. 265), "is hit by this weapon, the head remains in the wound and, as he cannot extract it, he is sure to perish."

The *Mocoví* held their lances at the middle of the shaft with the right hand under the left one; the *Abipón* grasped their lances with both hands near the proximal end.

Clubs.—The battle club of the Pilcomayo and Bermejo River tribes is a heavy cudgel of palo mataco with a bulging conical head or a wooden disk carved at the distal end. The Indians pass it through their belts or carry it suspended from the wrist by a loop (fig. 36, *i*).

The flat digging stick of the *Chamacoco*, with its sharp edges widening progressively toward the rounded distal end, may be used as a club when necessary.

The *Chamacoco*, *Tsirakua*, and probably many other Chaco tribes use throwing sticks to hunt rodents and other small animals. These sticks are short clubs with bulging heads (pl. 65, *right*).

Bolas.—The *Abipón* and *Mocoví* hunted with bolas which, like those of modern gauchos, consisted of three stones folded in rawhide

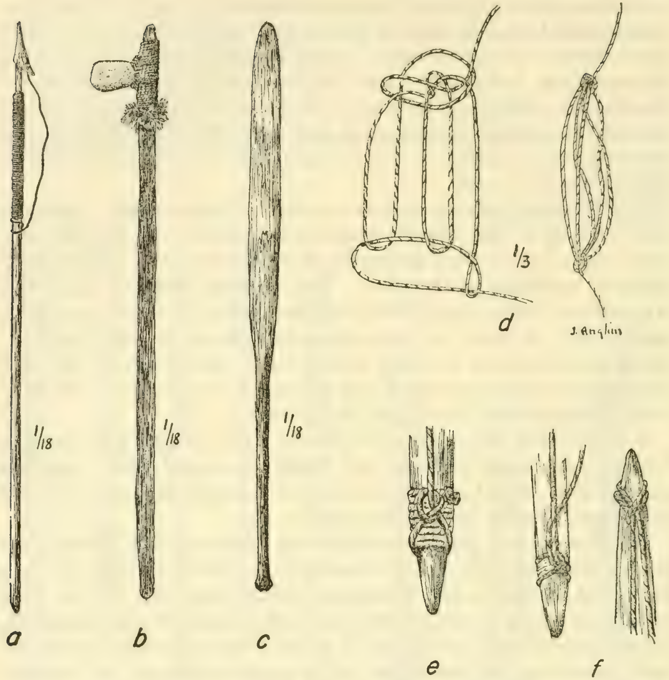

FIGURE 37.—Chaco weapons and implements. *a, Mocoví* war harpoon (redrawn from Baucke); *b, Chamacoco* hafted stone ax (redrawn from Boggiani, 1895, fig. 14); *c, Chamacoco* digging stick (redrawn from Boggiani, 1895, fig. 61A); *d, Ashluslay* sling (redrawn from Nordenskiöld, 1919, fig. 7); *e, f,* ends of *Choroti* bow (redrawn from Rosen, 1924).

and connected to one another by twisted thongs. Bolas are used today by the *Ashluslay* and *Lengua* for hunting rheas. The lack of stones and the dense bush make this weapon impracticable elsewhere in the Chaco and explains its limited distribution. In most Pilcomayo River tribes children play a game with bolas made of sticks instead of stones. (See Games, p. 338.)

Slings.—The Chaco sling, made with a single cord looped and knotted so as to hold the missile (fig. 37, *d*), must be classified as a toy, because the lack of stone made a lump of hard earth the only missile. Children sometimes use it to drive birds away from ripe crops (*Mataco*, *Abipón*, *Toba.*)

Pellet bow.—The pellet bow has two strings, which are held apart by a stick. A clay pellet is placed in a sling or pouch suspended between the two strings. This weapon is used almost exclusively by young boys to shoot at birds or small animals (*Mataco*, *Pilagá*, *Toba*, *Abipón*, *Mocoví*, *Mbayá*.)

Knuckle dusters.—Women use tapir-hide rings or deerskin bracelets as "knuckle dusters" in fights with other women (fig. 32, *f*). *Payaguá* men fixed claws and points to their wrists when boxing with a fellow tribesman.

Armor.—As a protection against arrows, most Chaco Indians wore strong, tightly woven caraguatá shirts (fig. 29) or hide armor. The ancient *Abipón,* wrote Dobrizhoffer (1784, 2:410), "covered the greater part of their bodies with a sort of defense made of undressed tapir hide, a tiger's skin being sewed either inside or outside." This garment had an opening in the middle for the head, and "extended on each side as far as the elbows and the middle." Arrows could not penetrate it. Jackets of jaguar skin were commonly worn both as ornaments and for protection by *Mocoví*, *Toba*, *Mbayá*, and *Pilagá* warriors, and by the *Mbayá* also, because "they imparted the jaguar fierceness to their owners." They were probably copied from the buff coats used by the Spaniards.

The *Chorotí*, *Mataco*, *Ashluslay*, and *Toba* protected their stomachs with broad rawhide belts.

Fire making.—The Chaco tribes aboriginally produced fire by the drill, but the flint and steel subsequently spread to almost all of them. The *Chorotí* and *Mataco* made both the drill and hearth of the soft light wood of a creeper (Asclepiadaceae), the branches of the *Capparis tweediana*, or tuscae (*Ephedra triandra*) wood. The hearth was short and provided with one or more shallow holes with a lateral groove. Among the *Chorotí*, *Mataco*, and *Ashluslay*, and perhaps other tribes, the drill was also fairly short and had to be fitted into an arrow shaft before use.

To make fire, the Indians place the hearth on some object, a knife or even a cloth, to avoid direct contact with the soil, and hold it with the foot. They put a pinch of tinder under the lateral groove and twirl the drill between the hands. Fire can be made in less than a minute. If the wood is wet, two men work on the same drill. Indians keep tinder in a small box made of the tip of a deer antler, a cow horn, or the tail of an armadillo. To activate a fire, fans made of the whole wing feathers of large birds are used everywhere. Logs are always arranged in the fire like the spokes of a wheel and are pushed gradually toward the center as they burn.

ECONOMIC INSTITUTIONS

Property.—Each band regards a certain tract of land as its own and resents trespass by members of other groups. The *Angaité* on the banks of the Paraguay River exacted a tribute from those who collected algarroba pods on their territory. Disputes over fishing rights are frequent among the tribes of the Pilcomayo River.

Ancient and modern travelers alike praise the generosity of the Chaco Indians toward the members of their own group, i. e., the household. Available food is equally distributed among all, and nobody is allowed to starve. Children are trained to share delicacies with playmates, and garments and ornaments are freely lent, passing from hand to hand.

The game brought home by a hunter or the food gathered in the bush is shared by all the members of an extended family who form a single household. Sánchez Labrador (1910–17, 2:5) observed that *Mbayá* hunters turned their catch over to their own household and that nothing was handed to the other houses. Nevertheless, strict rules determined the apportionment of the game killed by a group of hunters. A *Mocoví* who hit the animal first was assumed to have killed it, regardless of who delivered the mortal blow. Among the *Mbayá*, on the contrary, the one who had struck the last blow was the rightful owner of the carcass. The man entitled to the game divided the meat among his companions, reserving for himself a choice morsel and the skin. The leader of a hunting party always received the heart.

Indians take for granted that clothes and tools are one's personal property, though others may borrow them freely for a short time. A chief is morally obliged to give away any ornament or piece of clothing which arouses the cupidity of one of his men. Horses, cattle, and sheep are owned by individuals who either earmark or brand them. The *Mbayá* used elaborate ownership marks in the style of their pottery designs, which they painted or incised on all their possessions. Wives often ornament their bodies with their husband's property marks. As a property mark, *Ashluslay* women weave a special pattern in the corner of their blankets.

Fields belong to those who cultivate them, but crops are shared among the household members even if they have not participated in the cultivation.

Stealing from group members rarely occurs. The *Mocoví*, like the modern *Mataco* or *Toba*, left all their possessions in their huts when going on a journey, and they assured the missionary that they never missed anything when they returned home. Nothing shocked the *Mocoví* more than the thievish proclivities of the Creoles.

When a *Mbayá* missed an object stolen by someone in the camp, he would promise a reward for its return. The thief generally gave the object back and received the gift; in fact, everyone who had helped to restore the stolen possession expected some compensation.

Among the *Chamacoco*, property is inherited by the sister-in-law of the deceased; among the *Kashiká*, by his son, wife, or sister (Baldus, 1931 a, p. 74).

Justice.—Information on judiciary institutions is lacking. Anyone who, by his conduct, imperils the security of the band or who has committed a murder may be put to death or expelled from the village, after the case has been examined by a council of the chiefs and family heads.

Trade.—Trade has always been active between the Chaco tribes and their *Andean*, *Guaraní*, and *Arawak* neighbors, and also between the various groups within the area itself. In a document of 1593 there is specific reference to commerce between the Indians of the mountains and those of the Bermejo River; the latter brought deerskins, rhea and egret feathers, and wildcat skins.

After Alvar Nuñez Cabeza de Vaca (see Hernández, 1852, p. 566) had reestablished peace between the *Mbayá* (*Guaicurú*) and the *Guaraní*, the former frequently visited Asunción to trade barbecued game and fish, skins, fat, and caraguatá textiles for maize, manioc, peanuts, bows, and arrows. The *Guachí* and *Payaguá* provided other Indians of the upper Paraguay River with canoes for which they received bows, arrows, and other goods.

In the Colonial Period, the *Paisan* of the middle Bermejo River obtained horses from the *Abipón* and *Mocoví* of Santa Fé, whom they repaid with spears. The frontier Indians who acquired iron tools from the Spaniards bartered them with the people of the interior.

Forty years ago the *Tapieté* received their long shell necklaces from the *Ashluslay*, who seem to have obtained them from the *Lengua*. *Lengua* merchants visited the *Chorotí* to exchange shell disks for blankets or domesticated animals. Small loaves of urucú pigment from the northern Chaco pass from tribe to tribe as far south as the Bermejo River Basin. The *Chorotí* pay as much as a large woolen blanket for a single cake of urucú.

The *Chiriguano* and *Toba* visit each other to trade maize for dried or smoked fish. The *Mataco* and *Chorotí* provide the Itiyuro River *Chané* with fish in return for maize. The *Guachí* of the Miranda River brought the *Mbayá* blankets, feathers, reeds for arrow shafts, and various foods, and received knives, scissors, beads, needles, and silver plates. Notwithstanding their commercial relations, the *Guachí* never allowed the *Mbayá* to enter their villages (Sánchez Labrador, 1910–17, 1:68).

Tapieté and *Mataco* bands sometimes settle in *Chiriguano* villages to work several months for their hosts, who pay them with maize.

SOCIAL AND POLITICAL ORGANIZATION

The adoption of the horse by the tribes living along the right bank of the Paraguay and Paraná Rivers broke the uniformity of culture which seems to have prevailed throughout the Chaco at the time of the Conquest.

The Chaco tribes which became equestrian rapidly developed along new lines and within a century formed a strongly stratified society differing sharply from that of the western and northwestern tribes, who carried on the democratic system formerly characteristic of all Chaco groups.

The *Arawakan* tribes of the northeastern Chaco, though strongly influenced by their equestrian suzerains, seem to have preserved some features of their earlier social organization. The different social structures of these various tribes obliges us to deal separately with the social and political organization of the foot Indians (*Mataco*, *Chorotí*, *Ashluslay*, *Macá*, *Lengua*, *Toba*, *Lule-Vilela*), of the equestrian tribes and canoe tribes (*Abipón*, *Mocoví*, *Mbayá*, *Payaguá*), and of the *Arawakan* farmers of the north (*Guaná*, *Tereno*, *Layana*, *Kinikinao*).

The foot Indians.—The basic social unit of these tribes is the composite band which consists of a few extended families and numbers from 50 to 200 individuals. These bands are localized, own their hunting and fishing territories, have a distinctive name, and are under the authority of a chief. The various families aggregated in a band are often related by marriage or by blood ties. Identity of name is not a bar to marriage within the same band. Endogamous unions in a *Mataco* band tend to exceed in number the exogamous ones. On the other hand, *Pilagá* are reluctant to marry in their own band (Henry, J., and Henry, Z., 1944).

Mataco, *Toba*, and *Chamacoco* bands are named after animals(e. g., jaguars, peccaries, rabbits, sheep, donkeys, horses, dogs, armadillos, fishes, ants, and locusts), plants (e. g., quebracho, palo santo, creepers), manufactured articles (e. g., red clothes), natural objects (e. g., stones), parts of the body or physical characteristics (e. g., joints of the body, forehead, hairy people, those-who-move-their-buttocks), temperament or disposition (e. g., evildoers, people-who-throw-things-at-themselves), and other things. These Indians do not hold the eponym to be sacred. The existing food taboos have nothing to do with band affiliation; hence there is no evidence of totemism. Members of an extended family or sometimes of a whole band live in a single hut.

Residence after marriage is commonly matrilocal, though the couple later may move to the man's band. Desccent is established through the father, but if the father's band is small or obscure, the children tend to identify themselves with the maternal group (*Mataco*).

Theoretically the household consists of related persons but actually many of its members have no blood ties (*Pilagá*).

During the algarroba season, when large quantities of beer are brewed every day or when an important decision concerning the tribe is made, several bands will meet in the territory of some influential chief, where all together they will build a large camp. Each band, however, maintains its individuality. Bands which constitute subtribes now and then coalesce into a single big camp.

Political organization.—Among the tribes of the Bermejo and Pilcomayo River area a chief is an influential man, generally the head of an extended family, who rises to a dominant position as the result of his wisdom, skill, and courage. Many chiefs owe their authority to their reputation as shamans. A chief is expected to provide for the welfare of his people, to represent his group in dealings with other tribes or with Whites, and to see that no harm befalls his community. A chief is morally obliged to share all his acquisitions with the members of his band. As he cannot refuse to give up any object coveted by a follower, he is often a shabby-looking person.

No chief would dare to impose a decision at variance with the desires of his followers. He generally finds out the wishes of the majority by listening to conversations and then carries the matter through as if it were his own idea. A chief normally takes the initiative in hunting and fishing expeditions, and he suggests that the camp be moved when game or food plants in the vicinity are becoming scarce. He has also some vague judiciary powers; for instance, he may force a thief to restore stolen goods. When the council of mature men meets, one of the chief's functions is to address the crowd. Formerly, he delivered a speech to his band every morning and evening, even though no one seemed to pay the slightest attention to him. Likewise, before a drinking party he always exhorts the men to enjoy themselves in peace and harmony. If a chief is stingy or unable to protect his band from disaster, the families who were his followers rapidly desert him to join the band of a more satisfactory leader.

Over the band chiefs there is often a greater chief who is recognized as such by all the bands of a certain district. His village is generally a gathering place for several bands. The paramount chief of a subtribe enjoys great prestige, but his power depends entirely on his personality. White people have somewhat increased his authority by dealing with him as the tribal representative and by giving him military titles. Unfortunately, White people sometimes promote an unscrupulous interpreter to the rank of chief, thus destroying the cohesion of the group and hastening its disintegration.

Chiefly status is rarely hereditary. After the death of a chief, any man who, in the group's opinion, has the required qualities for the position may take his place.

Before the breakdown of *Toba* culture, the position of the chief differed somewhat from that in neighboring groups. Although in peacetime *Toba* chiefs had little to do and, theoretically, could not impose their will on ordinary warriors without being challenged by them in the tumult of a drinking bout, their deeds on the battlefield gave them more authority than had their colleagues in other tribes. The *Toba* were essentially warlike and their chiefs, who led their constant forays against their neighbors, had to display great courage and skill. Under favorable circumstances, these features, indeed, might have led to the formation of a stratified social structure similar to that of the other equestrian tribes.

Chieftainship was not entirely hereditary among the *Toba*, but tended strongly to be so, as a chief was succeeded by his son or another close relative unless he was unworthy of the office.

Descendants of a famous chief boasted of their connection and enjoyed a certain esteem which may be regarded as a step toward the formation of a nobility. The band chiefs were, at least in principle, subordinate to a subtribe or district chief, who often was a man of great influence and of forceful personality.

The status of the *Abipón* chief was very much like that of a *Toba* leader. Dobrizhoffer (1784, 2:113) defines his functions in the following terms:

> He provides for the security of his people, he increases the store of weapons, sends watchers and scouts to procure supplies from neighbors and to gain alliances. He rides in front of his troups.

Forty years ago, three out of the five *Chamacoco* chiefs were hereditary rulers and the other two had acquired their rank through merit. The supreme chief at that time was a regent for a minor heir. A paramount chief lived successively with each band. Whenever an important decision was to be made, the chiefs discussed it with the assembly of old people. There was little difference between chiefs and commoners.

The equestrian tribes.—Little information is available on the social structure of the *Mocoví*. Father Canelas (Fúrlong C., 1938 c, p. 86) speaks in general terms of "noblemen" and "plebeians" who kept apart. Members of the first class intermarried to maintain purity of blood, but commoners could take wives from other bands or from among captives. Nobility was also bestowed on famous warriors. Special grammatical forms were used to address a nobleman.

In contrast to the democratic organization of the Pilcomayo River tribes, *Mbayá* society was rigorously stratified. The adoption of the horse gave this tribe a decided advantage over its neighbors, which contributed to the formation of a system of classes and even of castes. Unable to absorb its countless prisoners, as most Chaco Indians do, each group maintained its individuality and hegemony by stressing blood purity and the privileges of the conquerors. The subjugated tribes were reduced to the condition of serfs and slaves, and the heads of the extended *Mbayá* families constituted a new aristocracy. However, their new social structure did not affect their original division into subtribes and bands.

Nobles and chiefs.—Two different types of noblemen (niniotagui) existed among the *Mbayá.* Those who inherited their status and those on whom the title was bestowed. The noblemen of the second category were individuals born at the same time as a chief's son, who received a title as a special favor. The lowest ranking nobility, they were called "ninioni-iguagua" (those who are like chiefs) and had neither followers nor houses of their own. They did not transmit their rank to their children and had to obey like any commoner.

The blood nobility was itself divided into two classes. The higher group comprised the senior members of an aristocratic lineage, and consisted of the chiefs of large bands and of subtribes. The second class of noblemen included all lesser chiefs and "all the [great chiefs'] descendants and relatives of both sexes, in whatever line or degree."

Mbayá chiefs were inordinately vain about their pedigrees and affected the greatest pride and insolence. The birth of a chief's son was an occasion for solemn feasts and for games which lasted several days. The education of a chief's male children was entrusted to distinguished persons, who were assigned a special hut. Every important event in the life of a chiefly heir, such as his weaning or his participation in children's games, was celebrated publicly with general rejoicing.

Nevertheless, the exalted position of the chiefs did not give them absolute power. Their decisions had to be approved by the council of the lesser chiefs, old men, and distinguished warriors. Great chiefs, however, could take the initiative in enterprises involving the subtribe or the band, such as migrations or war. (Sánchez Labrador, 1910–17, 2:19–23.)

When a chief decided to move the camp, he summoned a council of the men of his own band and arranged the details of the journey with them. Then he dispatched heralds to the lesser chiefs, who had remained in their huts, to explain the decisions made by the great chief. The lesser chiefs expressed their agreement by a stereotyped formula in which they lauded the wisdom of their leader, and said, "We shall march where he wants us to go." The ceremony was repeated every morning of the journey. When a war expedition was contemplated, however, the lesser chiefs met with the great chief.

An heir to the chiefly dignity who was deemed unfit for his position was removed by the council, which then selected another chief. In order to keep up at least an appearance of legitimacy, the new leader was officially regarded as the mouthpiece of the deposed chief.

Warriors.—The second social class, far more numerous than that of the noblemen, consisted of warriors. "The status of warrior," writes Moure (1862, p. 41), "was transmissible, as was that of captain, which entailed important privileges." Unfortunately, our sources are silent about the prerogatives and position of warriors relative to the members of the aristocracy.

Serfs.—The subjugation of *Guaná* farmers by *Mbayá* bands is pre-Columbian. In 1552 Ulrich Schmidel observed that the relationship of the *Guaná* to the *Mbayá* was like that of German peasants to their feudal lords. This peculiar symbiosis between the *Guaná* farmers and the nomadic or half-nomadic *Mbayá* may not have been accomplished entirely by force. Sánchez Labrador states that some *Guaná* had become serfs as the result of a marriage policy systematically followed by *Mbayá* chiefs. By marrying a *Guaná* chieftainess, a *Mbayá* "captain" became the suzerain of his wife's subjects. In 1766 the chief of the *Eyibogodegí* subtribe had taken as his second wife the chieftainess of the *Guaná* subtribe of the *Echoaladi*, whom the *Mbayá* already considered to be their serfs. This and similar cases may have suggested to Sánchez Labrador his historical explanation of the political and social subordination of the *Guaná*. This author also brings out the interesting fact that the *Guaná* considered themselves subordinate only to *Mbayá* chiefs, whom they called "our lords," but not to the rank and file of the tribe, whom they adressed as "our brothers." Unions between *Mbayá* chiefs and *Guaná* women may have strengthened the bonds between the two tribes, but cannot entirely account for *Mbayá* ascendency and *Guaná* subserviency. Actually, the *Guaná*, instead of pledging obedience to the *Mbayá* as their rightful lords, were restive and weary of the latter's off-hand manners and of their heavy demands. During the 19th century, the *Guaná*, encouraged by Brazilian support, finally put an end to this ancient bondage. Though the marriage policy might have been important, it seems more probable, as Almeida da Serra hinted in the 18th century, that the *Mbayá* established their suzerainty over the *Guaná* by harassing them for years, laying waste their fields, and ambushing them outside their villages. The hard-pressed *Guaná* farmers bought peace by paying tributes of food, cloth, and other commodities, and by serving the *Mbayá* whenever they were needed. After the *Mbayá* regarded the *Guaná* as their subjects, they protected them against the inroads of the other warlike tribes, such as the *Zamuco*, *Lengua*, and *Macá*.

Every year at harvest time a *Mbayá* band would spend a few days in the village of its *Guaná* subjects. Each chief stayed with his own vassals, and the presence of any chief who was not a lawful suzerain of that particular *Guaná* village was not tolerated. Even a chief's wife who had hereditary rights over another *Guaná* group left her husband and visited her own vassals. The *Guaná* entertained their suzerain and his retinue. They brought the expected tribute of blankets and of urucú (*Bixa orellana*) to the chief alone, for they felt no obligation toward other members of their master's band. The presents of the *Guaná* were not precisely a tribute, for the *Mbayá* gave them in return iron objects and glass beads which they had looted or traded from the Spaniards. The "noblesse oblige" principle also influenced the attitude of the lords, for though the *Guaná* stole whatever they needed from their masters, such thefts were in part sanctioned by custom and only elicited from the *Mbayá* contemptuous remarks, such as, "These *Guaná* are indeed thieves." The *Mbayá* chiefs distributed the presents of the *Guaná* among their retinue and kept only a few things for themselves.

The *Guaná* who served in *Mbayá* villages, and who at times outnumbered their masters, were not obliged to remain among them but could leave of their own accord. Apparently, they offered their services in return for some reward, the nature of which is not stated. It is specifically reported, however, that *Guaná* boys found life among the *Mbayá* pleasant; the main attractions were horseback rides and easy intrigues with *Mbayá* girls. The *Guaná* men who settled among the *Mbayá* tilled the soil, and the women wove cotton garments or made pottery for their masters. The *Mbayá* were kind and condescending to the *Guaná*, but many small details revealed the social differences. No *Guaná* servant could wear showy feather ornaments or paint himself with urucú without special permission from his master. When sitting around the fire, the *Guaná* were not handed the pipe that passed from mouth to mouth. Even their chiefs suffered humiliations if they made the slightest attempt to put themselves on equal footing with their suzerains. A *Mbayá* chief who had been invited by a Portuguese to dine with some *Guaná* chiefs forced them to leave the table and to sit on the floor.

Slaves.—When referring to the servile population in *Mbayá* camps, our sources do not always draw a clear-cut distinction between the *Guaná* serfs and the war captives, though their respective status was obviously different. The slaves, properly speaking, were only the war captives and their descendants. Among these were representatives of the following tribes: *Guachí*, *Guató*, *Guaraní*, *Caingang*, *Bororo*, *Cayapó*, *Chiquito*, *Chamacoco*, and even a few Paraguayan Mestizos. In 1802 the *Chamacoco*, hoping to avert further *Mbayá* raids, sold them 600 slaves, among whom were not only *Tumerehã* captives, but also many of their own children.

The possession of many slaves or servants was a symbol of prestige and rank. Nothing flattered the vanity of a *Mbayá* chief more than to be followed or served at table by a large retinue of slaves. *Mbayá* women were equally eager to appear in public surrounded by female servants. "Ladies" felt mortified when they lacked slaves to carry their possessions.

Slaves were, as a rule, kindly treated and were considered as rightful members of their master's family. They ate with him, took part in games as free men, and were even permitted to attend war councils. At home, however, they were relegated to the quarters farthest away from those of the household's head.

The main duties of the slaves were to fetch fuel, cook, tend horses, build huts, till the soil, and, sometimes, to hunt and fish.

Though a definite emphasis was placed on blood purity, marriages between women captives and free men or between free women and slaves were not uncommon. Many well-known *Mbayá* chiefs had *Guaná* or *Chamacoco* mothers. The status of the slaves did not improve by such unions, but children born of these marriages were free men, though their partly servile origin was a blot to which malevolent persons might refer. A few slaves, through personal merit or after the death of their master, could become free men.

In aboriginal times slaves could not be sold, but this rule was changed under the influence of the Spaniards and Portuguese. A man's slaves passed after his death to his son or to some other heir.

The most severe punishment that a *Mbayá* could inflict on an unruly slave was to threaten to take back the horses and other things he had given him and refuse to employ him any longer. The slave was thus shamed into good behavior.

By forcing the *Chamacoco* to supply them with slaves, the *Mbayá* unwittingly contributed to the formation of an incipient slave class among these Indians. Some captives were retained by the *Chamacoco* and, although well treated and allowed to marry free people, they were nevertheless compelled to perform menial tasks and could not own property. Slaves addressed their masters as "father."

The Payaguá, a canoe tribe.—The information given by Aguirre (1911, p. 376) on the social hierarchy among the *Payaguá* is somewhat obscure. He writes:

> The chiefs of the Sarigue subtribe were called coati, of whom there were two categories, the big ones and the small ones. They recognized and obeyed the main cacique and brought him food. The latter carried a stick, dressed in the best skin cloaks, and lived in a separate hut. As to the other chiefs, at least those whom the Payaguá call captains, they were not distinct from the rest of the people because they had to work for a living and were obliged to fish and to cut grass for fodder.

The *Payaguá* had a high regard for chiefly dignity and obeyed their lesser chiefs more readily than did other Indians. Blood purity was an important factor in determining an individual's status, though a title of nobility could be bestowed on young commoners at the ceremony in which the chief's son had his lip perforated to receive a labret.

The military societies.—Each *Abipón* band had a group of men, called hĕcheri or nelef̆eycatè, who enjoyed special prestige and influence. Dobrizhoffer refers to them as "noblemen," but actually they were members of a military order or society of those who had gained fame by their war deeds.

Admission to the order was preceded by a test of fortitude and by various ceremonies. The candidate, with a black bead placed on his tongue, had to sit still for 3 days without speaking, eating, or drinking. After the ordeal, women surrounded him and mourned his ancestors. Then, mounted on a horse, he called on an old medicine woman whose hut he approached from the four directions of the compass successively, pausing each time to listen to homilies she delivered for his benefit. His head was then shaved, and the old woman celebrated his exploits and his forefathers' military fame. He was given a new name, characterized by the ending "in," which was reserved to the members of the order. The name was immediately promulgated and "festively pronounced by a band of women striking their lips with their hands." A drinking bout closed the ceremony. The hĕcheri differentiated themselves from other people not by special ornaments, but by certain mannerisms of speech or the profuse use of redundant syllables which gave to their language a "noble" turn. Those who addressed them had to add the suffix "in" to words. Moreover, the members of the society had some words peculiar to themselves. Some hĕcheri, however, scornful of the privilege, were content with normal speech. There were also warriors of renown who for one reason or another obstinately refused to join the military society. Some women were admitted into the order by virtue of the "merits of their parents, husbands, or brothers." The new name which they assumed ended with the "en" suffix.

A military order composed of outstanding warriors seems to have existed among the pre-equestrian *Mbayá*, when they were known as *Guaicurú*. Young warriors who had distinguished themselves in battle were urged to go through an initiation ceremony which placed them on an equal level with elder warriors. They appeared in public with paint and elaborate feather ornaments, and with their hair shaved except for a band from one ear to the other. They played the drum and chanted for a whole day and were repeatedly jabbed by adult warriors, who smeared their heads with the oozing blood.

Warrior societies, which probably existed in pre-Conquest times, must have contributed to the formation of a military nobility. Even among the *Abipón*, who retained much of the old democratic spirit of the band, ceremonial recognition was accorded not only the candidate, but also his forefathers. The *Mocoví* noblemen were merely members of military societies.

The Arawakan tribes.—The *Tereno* are divided into two endogamous moieties, one called the good one and the other the bad one. Each is said to be related to one of the mythical twins. The moieties are not segregated and the division becomes apparent only during the yearly war dance, known as the "dance-of-the-ostrich-feather-dress."

The *Tereno*, who like all the *Guaná* subtribes reshaped their society on the *Mbayá* pattern, even in recent years recognized three distinct soccial ranks: the chief's class (nati), the warriors (shunachati), and the camp followers (machatichane). The last were at the service of the warriors but could be raised to the warrior's rank after killing many enemies. Intermarriage between these classes was not allowed and was even punishable.

The *Guaná* were ruled by hereditary chiefs who enjoyed consideration and influence in the assemblies, but their power depended on "their personal renown, force of character, and ability as leaders" (Hay, 1928, p. 107). Chiefs controlled local affairs and enforced the laws, but they could not take any initiative without the approval of the council of warriors.

Among the *Tereno*, authority was divided between the heads of the extended families, the village chiefs, and the paramount chief of the tribe—an office probably forced on them by the Brazilians.

A *Tereno* chief's oldest son succeeded to his title unless one of his father's brother's sons was older. Next in line came the chief's oldest grandson or his brother's grandson; then followed the oldest son of the chief's sister, the husband of the chief's oldest daughter, the oldest son of the chief's oldest daughter, the husband of the oldest daughter of the chief's brother's grandson, the chief's oldest sister's husband, and the husband of the chief's sister's oldest daughter. Hay (1928, p. 107), confirming a statement made by Sánchez Labrador and Rengger,[43] says that even nowadays women may succeed to a chief's title.

This rule of succession explains why *Mbayá* chiefs who marry *Guaná* chieftainesses were regarded by the latters' subjects as their lawful leaders.

All the boys born within a few months of the chief's son were regarded at his particular followers. When the heir apparent became 15, his father invited all the chiefs of the region to a big feast. Wearing all their ornaments, painted all over, and singing, they circled the young man. The ceremony was followed by 2- to 4-day banquets.

Kinship terms.—Extensive lists of kinship terms have been recorded only among the *Mataco*, the *Tereno*, and the *Pilagá*. These three tribes distinguish grandparents according to sex, and extend these terms to include all the grandparents' siblings and spouses. They have special terms for uncle and aunt, but do not distinguish between the siblings of either parent. In Ego's generation, younger siblings are distinguished from older ones and the same terms are applied to parallel- and cross-cousins. The *Mataco* and *Tereno* call their siblings' children "nephew" and "niece." The children of sons, daughters, nephews, and nieces are all designated as "grandchildren."

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[43] Rengger (1835, p. 335) writes, "Chiefly dignity is hereditary and when the male line is extinct it passes to the widow or the daughter of the deceased chief. If she marries, her husband becomes chief. She may divorce him and her third husband assumes then the rank of chief. Chiefs do not wear any insignia and do not receive any tribute. They are always at the head of the group in peace or in war time."

The *Mataco* classify the father-in-law and mother-in-law with the grandparents, and the children-in-law are equated to the grandchildren. All other affinal relatives may be addressed by terms meaning "male-" or "female-relative-in-law." If, however, there is a close tie between affinal relatives of different generations, they address each other as "grandparent" or "grandchild." There is a special *Mataco* term for the spouse of the brother- or sister-in-law.

ETIQUETTE

In many Chaco tribes (*Lengua-Macá*,[44] *Kaskihá*, *Chorotí*, *Vilela*, *Chamacoco*) a person who returns from a long absence is greeted with tears and funeral laments if someone has died in the group while he was away. Such manifestations of grief serve to notify the traveler of the sad event. The members of a *Mbayá* band who had been absent from the village when a death had occurred cried and moaned as soon as they returned home.

The visit of a *Mbayá* chief to some colleague was marked by elaborate formalities. Before entering the village, the visitor sent four messengers who sat down on either side of the prospective host; after a moment of silence, they rose and delivered a speech announcing the arrival of the chief's "brother." The chief then begged them to sit down, thanked them, and served them food. Afterward he dispatched emissaries to greet the distinguished guest and to guide him to the temporary tent erected for his lodging, where he was given food and was formally visited by his host. A musician, covered with feather ornaments and profusely painted, sang in honor of the visitor to the accompaniment of a gourd rattle and a drum. The climax of the reception was a party at which everyone drank mead to his heart's content.

When a *Mbayá* band went to call formally on another band, the visitors stopped the day before a short distance from the host's village, where they painted themselves and donned their best ornaments. The next morning, several mounted scouts approached the village and fought a mock skirmish. The others came on foot and were engaged in a general boxing tournament by their hosts. After exchanging a few blows, the visitors stormed the village and pillaged whatever their hosts had been unable to hide the day before. After this simulated warfare, they all sat down to eat and drink together.

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[44] Azara (1809, 2:151) says: "Ils [the *Lengua*] emploient entr'eux une singulière formule de politesse, lorsqu'ils revoient quelqu'un après quelque tems d'absence. Voici à quoi elle se réduit: les deux indiens versent quelques larmes avant que de se dire un seul mot; en agir autrement serait un outrage, ou du moins une preuve que la visite n'est pas agréable."

In most *Guaicuruan*-speaking tribes, when some member of the band or a visitor was about to set out on a journey, an old woman would dance a few steps and chant a magic formula to bless him (*Mbayá*, *Pilagá*, *Abipón*). A returning traveler or a guest was often received in the same manner. Among the *Kaskihá*, the old women who performed the rite unburdened their visitor and carried his weapons or his load to their huts, while chanting plaintively.

The *Mocoví* greeting was, "Here I am," to which the host answered, "You are here." The same formula, with a slight grammatical change. was used both by noble people and by those who addressed them. No *Mocoví* would enter a house or dismount from his horse without an invitation. When asked why he had come, the conventional reply was, "Just for nothing." Like modern *Toba*, they took leave by simply saying, "I am leaving," to which those present replied, "Go." To omit this courtesy was interpreted as evidence of anger.

During a meeting, all participants had to declare in turn that it had lasted long enough before adjourning. Good breeding demanded that a man who met another on the road inquired where he was going.

When the *Ashluslay*, *Pilagá*, or *Chorotí* arrive at a village as visitors, they spend the first night singing to the rhythm of their rattles a chant by which they express their friendly intentions.

WARFARE

All Chaco Indians were extremely warlike; many still are. The most bellicose were the members of the *Guaicuruan* family, who were greatly feared not only by their neighbors but also by the Spaniards. The *Abipón* and the *Mbayá* were among the few Indian tribes of South America that challenged Spanish domination and repeatedly defeated the Whites. Dobrizhoffer (1784) says of the *Abipón*, "Their whole soul was bent upon arms." There is little doubt that the introduction of the horse, which placed the Indian warrior on equal footing with the Spaniard and added to his mobility, accentuated the warlike disposition of the *Guaicurú* and increased the militaristic trend of their culture. Chance alone does not account for the fact that all the horsemen of the Chaco were *Guaicuruan*-speaking Indians; They wanted the horse because it meant more to them than to their less aggressive neighbors.

The main motives which prompted Chaco Indians to make war were: Revenge for the death of some member of the group caused by overt violence or witchcraft; trespassing on hunting or fishing grounds; loot, especially herds of sheep and other animals; and the desire to capture women and children (*Mbayá*, *Mocoví*).

Many tribes in the Chaco were and still are traditional enemies; thus, from time immemorial, the *Toba* and the *Pilagá* have waged a bitter war against their neighbors across the Pilcomayo River, the *Ashluslay* and the *Macá*. The *Mataco* and *Toba* have ceased killing each other only in recent times. The *Lengua* continually skirmish with the tribes along their western borders. Alliances between tribes occurred very seldom, but on several occasions the *Abipón* banded with the *Toba* and *Mocoví* to raid the Spanish frontier.

In former days, the decision to begin a campaign against an enemy band or tribe was made by a chief. As a rule, he invited his fellow leaders to a drinking bout to discuss the matter with them and gain their approval and cooperation. At such a meeting the leader of the expedition was chosen. Among the *Toba*, if the band chief were too old, some younger and more enterprising warrior, generally one of his close relatives, was selected. The power of a war leader was in sharp contrast to the lax and indefinite authority which a chief enjoyed in peacetime; nevertheless, an *Abipón* war chief could not prevent the desertion of families that were unwilling to fight. The decision to wage war was an occasion for merrymaking, drinking, dancing, and celebrating the anticipated victory. A *Lengua* band preparing for war summoned the other bands by sending messengers with red arrows, who told them the place of rendezvous.

The duties of an *Abipón* war leader were to gain allies, to take all measures for the safety of noncombatants, to see that the war party had the necessary horses and weapons, and to organize the information service by sending scouts and spies ahead of the troup. The chief rode in front of his men and was the first to charge the enemy. The *Mbayá* war chiefs, on the other hand, brought up the rear.

The *Pilagá*, before marching against the enemy, drank beer and performed the dance of courage to make them valiant. The women had to observe several taboos lest they harm their men during their absence. For instance, they might not twist cordage on their thighs, as this would prevent the warriors from running fast enough. Menstruating women might not sit on the ground. Sexual intercourse before a war expedition was regarded as extremely dangerous. The warriors themselves could not eat the head, the legs, or the grease of any game. The *Abipón* regarded the period of the waning moon as the most propitious time to set out to war.

No special order was kept during the march. The Indians scattered every day in order to hunt, but at night they met at a designated place. Camps were selected so that the natural protection of a river, lake, or wood prevented surprise attacks. When resting in the evening, the shamans, who accompanied the *Pilagá*, fell into a trance, and their familiar spirits helped them ascertain the whereabouts of the enemy. During the night, the *Abipón* scouted the nearby plains, sometimes blowing horns and trumpets, to make sure that there was no danger nearby.

Before attacking, the chiefs waited for the reports of scouts sent to observe the movements of their opponents. The men crawled close to the enemy camps and remained in touch with one another by imitating animal and bird calls. They also conveyed messages by breaking branches in a special way or by tying knots in the high grass. To avoid leaving footprints, they tied pieces of skin to the soles of their feet (*Abipón*). The *Lengua* posted messengers at set intervals so that the scouts could always communicate with the main troops.

Just before engaging the enemy, if circumstances permitted, the *Abipón*, *Toba*, and probably all other Chaco Indians brewed mead and celebrated a drinking bout during which they threatened their enemies and celebrated their own past deeds with rhetorical outbursts. Before the battle, all Chaco Indians except the *Mbayá* painted themselves with red and black dyes. The *Mbayá* used black but never red dye which, for an obvious association, they believed would bring bad luck. Warriors also donned their best ornaments. Head bands decorated with horns or toucan beaks or hairnets of red wool were generally worn on the battlefield by the *Abipón*, *Mocoví*, and *Mbayá*.

Indian tactics always aimed at avoiding casualties. Even the bellicose *Abipón* or *Mbayá* would flee if they suffered a few losses; battles were, therefore, rarely bloody, unless a surprise attack succeeded. A war party usually sought to storm the unsuspecting enemy camp before dawn when everybody was still asleep. After shooting a few volleys and setting fire to the huts with incendiary arrows, the attackers, armed with clubs, would rush into the village to massacre everybody except young women and children. The surprised victims would try to resist long enough to allow the women and children to run away into the bush, where they scattered to avoid mass capture. The attack was also preceded by a terrific shouting and the playing of trumpets or clarinets. Like some North American Indians, the *Toba*, when charging their enemies, shouted while striking their mouths with their hands. The *Mbayá* formed a crescent with flute players in the center. The *Mocoví* generally placed themselves in two lines around their chief, according to the closeness of their relationship to him. The *Abipón* put archers in the middle and spearmen on the wings. They rarely fought on horseback, but left their mounts at some distance to the rear guarded by a special troop of younger men; but sometimes they attacked on horseback, and charged in several parties to harass the enemy on all sides. They had marvelous control over their horses: they could hang from their mounts or, to avoid missiles, conceal themselves entirely under their horses' bellies. The *Mocoví* cavalry was followed by infantrymen, and, while the main body fought, small groups raided the horses and cattle.

When fighting on foot, the Indians dodged about constantly to avoid enemy arrows, and continually howled to sustain their courage and frighten the opponents.

A common ruse which the *Abipón* used against the Spaniards was to disband as if to run away and then rush back as soon as the latter had broken their ranks to pursue them.

A victorious *Abipón* party informed its village through a messenger, who first enumerated the casualties suffered by the enemies and the booty taken. This news was hailed by a crowd of women and old men who struck their lips with the right hand. No herald ever mentioned a deceased warrior by name but referred to him as the relative of so and so. The warriors returned home individually, without ostentation. If a young *Mbayá* had killed an enemy, his mother made gifts to his companions and organized a drinking bout.

There is no mention of disputes over the booty. Each man brought home his captives, herds, or other loot. A *Pilagá* chief gave all his spoils to his followers and only retained one captive (Arnott, 1934 a). It is stated that *Mbayá* slaves who fought by the side of their masters were allowed to keep the prisoners they had taken.

Trophies.—For trophies, the Indians took either heads (ancient *Guaicurú*) or scalps (*Mataco*, *Chorotí*, *Ashluslay*, *Chunupí*, *Isistiné*, *Lule*, *Abipón*, *Mocoví*, *Toba*, *Pilagá*, *Mbayá*). *Abipón* and *Mataco* scalped so as to include the skin of the nose and ears. The *Ashluslay* dried scalps over smoke and mounted on a wooden hoop.

The *Abipón*, like so many South American tribes, used the bones of their dead enemies to make pipes or whistles and their skulls for cups.

Victory feasts.—A victorious *Toba* or *Pilagá* war party was received by women who danced holding tufts of red feathers. Warriors handed their scalps to the women, particularly to those who had lost a husband in the war. The women danced and played with these trophies, derisively treating them as husbands or lovers and improvising comic dialogue between the scalps and themselves. The warriors, who wore masks made of bags stretched over a wooden frame and decorated with feathers and who painted red and black stripes across their bodies and attached bells to their ankles, danced to drums around a pole on the top of which the scalps hung (pl. 74, *top*). During the dance, which consisted mainly of running wildly about, they punctured themselves with bone awls trimmed with feathers and sang their personal songs or those inherited from their fathers. They shouted to the scalps, "May he die," an apostrophe directed either at the soul of the enemy or at his kin. A man who had killed an enemy was entitled to wear the red feathers of certain birds and to carry a ceremonial cord covered with beads. (See Arnott, 1934 a; Métraux, 1937, pp. 396–398; Rydén, 1935.)

Mocoví warriors brought home the skulls or the scalps of their slain foes, and were received by old women who danced, beat drums, and shouted, striking their mouths with their hands. The trophies were suspended from posts around which old women danced every day for a month. A warrior attached a new feather to his spear every time he killed a man.

The *Lule* also celebrated their triumphs by giving the scalps to old women, who danced with them (Fúrlong C., 1941, p. 84).

The *Mbayá* women carried the scalps, bones, and weapons of the enemy on their husbands' spears, to celebrate the prowess of their men. The victory feast terminated in boxing matches.

The *Abipón* solemnly celebrated the anniversaries of great victories. The heads of the extended families were invited by criers or heralds, generally old medicine men of low birth, who, carrying a stick with a little bell, visited each house. The women received them, striking their lips and shouting. The herald handed them the stick, delivered his message, and, taking back the stick, went on. For the occasion, the host built a large hall to shelter his guests. The scalps taken during the battle were displayed on a reed platform nearby and were hung on spears fixed in the middle of the plaza where the people sat. The Indians drank profusely and at night listened to "bards" who, chanting in pairs, related their heroic deeds and derided their enemies. The subjects of these epics, according to Dobrizhoffer (1784, 2:478) were "warlike expeditions, slaughters, and spoils of the enemy, the taking of towns, the plundering of wagons and estates, the burning and depopulation of colonies of the Spaniards."

Peace making.—A *Lengua* band that wanted peace sent emissaries carrying bundles of arrows and bows tied together. They were received by a deputation from the enemy village. Peace could not be sealed before both enemy groups had paid the wergild for all the dead of the respective families. Members of neutral bands were used as go-betweens.

Treatment of prisoners.—Men were rarely spared by the *Mbayá* unless they could be sold as slaves to the Spaniards. Women, especially if young, and children were captured and incorporated into the victor's tribe. The *Mbayá*, *Mocoví*, *Abipón*, and *Chamacoco* are the only Chaco Indians who treated the women or children captives as slaves rather than as rightful members of the group.

The "Comentarios de Alvar Nuñez Cabeza de Vaca" state (Hernández, 1852, p. 564) that among the *Mbayá* a woman could intervene to save a prisoner's life and even gain his freedom. A captive might be adopted into the tribe if he wished.

The *Abipón* pretended to despise their war captives and theoretically refused to intermarry with them even though they were Spaniards. The honor of a kidnapped White woman was said to have been safe, not because they respected her, but, on the contrary, because they did not wish to lose caste by taking her as a wife or concubine. War prisoners enjoyed great freedom, and many took such a liking to the roaming life of their captors that they refused to be ransomed. Some *Abipón* masters were so fond of their slaves that they preferred to starve rather than deprive their captives of food. The captives performed menial tasks, which, however, were always requested in a gentle manner, and they rarely or never received corporal punishment. (For the treatment of war captives among the *Mbayá*, see Social Organization, p. 307.)

The *Payaguá* either killed their prisoners or sent them back to their families for a ransom of food.

Signals.—Chaco Indians on the warpath or on hunting trips have various methods of communication. They warn of an impending danger with columns of smoke. Bunches of grass knotted in a certain way and placed on a forked limb show stragglers the direction taken by their companions. The position and the nature of an object left as a signal convey various kinds of information. The inclination of a stick tells the distance from one point to another, probably showing, as a sundial, the time needed for covering it. Objects hanging from a branch announce to late-comers that the band has left for a feast. An arrow means war or trouble (*Toba*, *Payaguá*, *Lengua*).

LIFE CYCLE

Pregnancy.—Several Chaco tribes believe that children are formed by the sperm which sprouts in the womb like seed in the earth, and that the presence of the fetus blocks the flow of menstrual blood. The *Mataco* attribute sterility to an obstruction in the uterus, which is caused by sorcery and is difficult to cure. *Toba* and *Mataco* believe that intercourse must be repeated to cause pregnancy; men wishing to produce abundant sperm, drink broths made of various birds.

When a woman knows that she is pregnant, she and her husband abstain from foods and activities which may endanger the delivery, or harm the child's appearance or character. These taboos are enforced until the child is regarded as sufficiently developed. Birds are especially excluded from the diet; so are many animals and certain parts of animals. For instance, the *Toba* and *Pilagá* may not eat the legs and brains of game lest the baby be born bowlegged or with an open skull. To eat the heads of certain animals would threaten the child's life. The husband of an expectant mother has to cease certain kinds of work: He may not use cutting instruments, for if he were to fell a tree, the baby would be born with a cleft lip; he may not wear boots lest the child's legs be crooked. If he keeps his hat on, the child's skull will be flat. Just before confinement, the husband unties his belt and loosens his garments to facilitate delivery. He removes his necklace lest the navel cord strangle the baby. A prospective *Pilagá* father is convinced that to clean his pipe with a straw would cause the fetus to choke. Before childbirth, *Pilagá* women rub stingray fat on their stomachs to facilitate delivery, because this fish carries its "babies in a pocket outside its body" (Palavecino, 1933 a, p. 539).

Childbirth.—Detailed information on childbirth is available only for the *Mataco.* A *Mataco* woman in labor is generally surrounded by female relatives or friends who are ready to assist her. She sits on the thighs of some older woman who squats on the ground and, to ease the pain, clings to a post in front of her. She is usually delivered in this position. If labor is unusually long—a circumstance attributed to sorcery or to the husband's negligence—some self-styled midwife presses the lower part of her abdomen. Until the placenta is expelled, they are loath to cut the cord.

An *Ashluslay* woman gives birth in a squatting position, assisted by her mother, who cuts the navel cord. Childbirth takes place under a shelter built ad hoc.

According to Hassler (1894, p. 354), a *Kaskihá* woman was delivered in a special cabin built in the bush, where she was helped by another woman. The navel cord, cut with a bone knife, was sent to the father, who placed it on the roof of the hut if the child were a boy, or buried it if it were a girl. The mother remained home for about 40 days living exclusively on vegetables. The father refrained from eating meat for about 8 days after his child's birth, and was particularly careful not to get his feet wet.

The *Chorotí*, *Toba*, and *Ashluslay*, though well acquainted with metal tools, use only the ancient bamboo or shell knife to cut the cord. The *Chorotí* and the *Toba* are said to keep it until the navel wound is perfectly healed.

Chamacoco women give birth in the bush, generally unassisted. They cut the navel cord with their nails and spit in the baby's eyes lest he be blind, a rite performed again later by a shaman. For a month, the mother eats nothing cold and lives on bird flesh, palm shoots, and boiled pigeon. She drinks only boiled water. The parents refrain from sexual intercourse for about 2 years (Baldus, 1931 a, p. 45).

An *Abipón* father of a newborn child fasted and lay in bed covered with mats and skins. For some time he refrained from snuffing tobacco, eating capybara flesh, riding horseback to the point of perspiring, tasting honey taken from the earth in a place that had been stepped on, and swimming across rivers. *Tereno* fathers observed a 5-day couvade and abstained from several foods.

As a rule, there is no elaborate childbirth ceremony except for a chief's son, and its importance is proportionate to the chief's prestige. For an ordinary birth, a *Toba* chants and rattles his gourd, but at the birth of a chief's son, the whole community dances and makes merry for several days while shamans recite charms to the rhythm of the gourd rattles. The ancient *Mbayá* celebrated the birth of a male heir to a great chief by dancing, playing games, and parading for 8 days. The most spectacular show was a parade of old women impersonating *Mocoví* warriors. The masqueraders visited the baby, wearing horsehair wigs symbolizing scalps and holding ceremonial arrows and miniature bows and spears. They vied for the honor of giving the breast to the baby, and presented him a decorated mat. The chief's baby spent a night with another baby who was to become his brother-in-arms. Both were then taken to the chief's hut under a canopy, and were followed by a long procession. On the eighth day the baby's hair was cut, and his ears and lip perforated.

The *Abipón* also rejoiced for 8 days in similar circumstances. As soon as the baby was born, women beat the roof and walls of his hut with palm boughs to signify that "the child was to become famous in war and the scourge of his enemies." Another performance was that of the girls who, led by a strong woman wearing a rhea feather apron and holding a whip, beat all the men. The same strong woman challenged all the stout women to wrestle. The following 4 days were devoted to games, drinking bouts, and singing accompanied by drums. On the 3rd day boys and girls formed a circle and danced, whirling around under the direction of an old precentress who shook a gourd rattle.

Women carry their babies in a sling, straddling the left hip (pl. 67). *Payaguá* mothers are said to have facilitated nursing by compressing their breasts with a leather strap passing across the chest.

Abortion and infanticide.—The rapid decline of so many Chaco tribes has often been explained by the deeply rooted practice of infanticide so general throughout the Chaco. The vehement accusations of infanticide made by the early missionaries have, in fact, been borne out by modern evidence. When an unmarried *Mataco*, *Chorotí*, or *Toba* girl is pregnant, she commits abortion or kills her baby without the slightest hesitation. The *Mbayá* women did the same in order to postpone becoming mothers as long as possible. It is reported that even married *Mataco* women provoke a miscarriage at their first pregnancy to facilitate the delivery of the next child. Many legends circulating in the Chaco extol marvelous drugs used by the native women to cause abortion. Actually, the method is purely mechanical: in the third or fourth month of pregnancy a friend presses the woman's abdomen with her thumbs or fists or beats it until the fetus is dead.

A deserted woman always kills her newborn offspring. The *Lengua* invariably dispose of the first child, if it is a girl. Chaco women get rid of any abnormal baby, for instance, one with black skin.

Twins are usually killed, for their birth is regarded as a bad omen. The ancient *Lule*, who believed that a man could only father one child at a time, attributed twins to the mother's adultery and killed one baby (Lozano, 1941, p. 416). Twins born in a *Mbayá* community were taken to the shaman, who shut himself in a mat lodge, chanted, and shook his rattle while uttering gloomy prophecies, and then buried the babies alive or exposed them in the bush. Certain tribes rationalize such infanticide by saying that no woman can nurse two children. A bad dream prior to childbirth may also spell its death.

The preferred sex varies from tribe to tribe. The *Lengua* and *Guaná* kept only a few girls; the *Abipón*, on the contrary, preferred female children, recognizing that later they would bring a good bride price. If the mother died during childbirth, her child was buried alive with her.

Many theories attempt to explain the widespread practice of infanticide in the Chaco. One holds that the seminomadism of these Indians makes many children an excessive burden for the woman, who has to carry and care for them. Moreover, in several tribes where a nursing woman abstains from sexual intercourse with her husband, and childen are suckled 3 and even 4 years, she often prefers to kill her child rather than to be deserted (*Abipón*). The Jesuit Baucke (1870, p. 247), states that the *Mocoví* killed their newborn babies when there was the slightest suspicion of illegitimacy, when they had too many children, when they were on a journey, or when there was scarcity of food.

Naming.—Children are named after birds, animals, places, or some peculiar physical or character trait. Often a name may be suggested to a parent by some incident from real life or a dream. *Mataco* fathers not only name their children, when they are 2 or 3 years old, after some object or animal of which they have dreamed, but they even call them after disconnected words or sentences uttered by some character in a dream. Among the *Toba*, a child's relatives gather around it after the navel cord has dropped off. An old man recites a list of names until the shaman finds the appropriate one, usually that of some ancestor who is supposed to be reincarnated in the infant.[45]

The *Mataco* are always very reluctant to reveal their names, and when urged to do so, they ask some other person to pronounce it for them. These Indians will often contend that a person is nameless. To address an *Abipón* by his name was a grievous insult which he was morally obligated to avenge. *Tumerehã* men have several names: one given to them by the shaman and the others by their relatives. A woman's true name is never divulged even to her husband; the names to which she answers are known as "dog names."

There are only two brief references to teknonymy in the Chaco. *Mocoví* and *Lengua* parents were called "mother and father of so and so."

Education.—All observers have been impressed by the Chaco Indians' fondness for their children (pl. 67) and their failure to use corporal punishment or even harsh words in dealing with them. The *Mbayá* satisfied every whim of their children, and even willingly sold their horses or moved their camps if the children so desired. *Abipón* warriors interpreted a child's aggressive behavior, even when directed against the parents, as a sign of courage.

Children are trained for their future occupations first through games and play. Little girls accompany their mothers to the bush carrying diminutive nets or go to the river with toy water jars. Small boys are given bows and arrows and are encouraged to shoot at targets or at small animals. Boys of more or less the same age play in groups. They show little or no brutality or violence, and they rarely bully small children. The Indian children are normally remarkably gay and lively, and willingly perform any task demanded of them. From early childhood they are trained to share their food. Boys of 12 or 13 regard themselves as grown up; they participate in dances and take some interest in girls.

Boys' initiation rites.—Initiation rites are described only for the following tribes: *Mbayá*, *Payaguá*, *Vilela*, and *Chamacoco.* Grubb (1913, p. 177) alludes to a special dance to commemorate a boy's coming of age, but gives no detail.

A *Mbayá* boy of about 13 attained warrior's status through a ceremony. Having painted himself red and white and wearing all his feather, bead, and metal ornaments, he chanted for a whole night and day, beating a drum. At sunset a shaman pricked the boy's penis and jabbed his body with a jaguar-bone awl, causing blood to flow abundantly. The boy was expected to remain impassive. His blood was then smeared all over his body. Afterward the novice invited the band to drink, and threw beads, knives, and blankets to the crowd.

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[45] Palavecino (1933 a, p. 560) states that the *Pilagá* assume a new name—always that of an animal or plant—when they are sick.

There is some evidence in the literature that certain *Guaicurú* groups imposed this ordeal on young children, who likewise had to show their courage by not flinching. The lower lip was perforated by a famous warrior during early childhood. At puberty they jabbed the boy's genitals and pulled out one of the two remaining crowns of hair on his tonsured head. The adolescent was now regarded as an adult and was allowed to wear bracelets and a belt of animal or human hair.

The *Payaguá* perforated a boy's lower lip at the age of 4. For a chief's son, this was the occasion for a solemn feast. For several days the members of the group drank, chanted, and shook their rattles. Finally, a shaman holding the boy was paraded about on a profusely decorated litter. The crowd threw them many presents, such as necklaces, food, and cotton, and men sprinkled them with blood extracted from their genitals. Small boys of the same age were designated as soldiers of the future chief (Aguirre, 1911, p. 363).[46]

Paisan boys who had reached puberty underwent a mysterious ceremony celebrated around a sacred tree. The initiates, with cropped hair, returned to the village holding flowers or boughs. Thenceforth, they were regarded as fullfledged men.

Chamacoco initiation rites strangely resemble those of the *Yaghan* (p. 98).

Two men ask the boy's mother to give him to them. If she refuses, spirit-impersonators come to claim the youth. The boys are taken to a secluded place in the bush, where they live for a month with old men who teach them tribal lore and moral code. Finally, they are told that the "Spirits" who appear at the Anãpösö feast

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[46] Aguirre (1911, p. 363) states: "Ví una de estas celebrando á un niño como de 3 años, hijo de Samaniego Guachá, era indio principal Sarigue . . . Pusieron 400 varas de toldo, 40 palmas pequeñas y hasta ellas hicieron una calle de ramas plantadas. Al pié de aquellas, sobre cuatro palos largos en el medio unas tablas, y sobre estas por medio de unas estacas y esteras formaron un hueco, como de una pequeña carreta y aun asi nos la llaman, la cual emplumaron y adornaron. Habiendo procedido algunos dias y noches de borracheras, de canto con sus tamboretes sin faltar las heridas de la espina de raya, el del paseo y último de la celebración que se embijan a lo riguroso (en lo que he observado superan a las demas naciones) carga el padrino que siempre es uno de los pays al chico ambos extremosamente embijados y entran en la carreta. Tómala al hombro la indiana y por la calle van al toldo en cuyo frente da tres paseos cortos á la derecha y á la izquierda y vuelve despues al lugar de las palmas donde la deshacen al despojo.

"Durante el paseo es el alboroto: unos echan hacia la carreta, abalorios, chipas, frutas, ovillos de hilo, etc. que son para quién los coje; otros cantan y hacen gestos, principalmente las indias y tambien hay quienes la aspercean con su sangre, la más sagrada la del miembro mezclada con agua. Este es el obsequio del distinguido niño que como esperan ha de capitanear; entonces le nombran para soldados algunos coetanos que no gozan del ilustre rito de las andas, entre ellos negesí. Es puramente militar con cuyo objeto se hacen visibles los deseos del dia en los moquetes y luchas que resultan como en otras cucañas, en el canto, etc."

(p. 358) are merely masked men, and that if anyone reveals this secret to the women, he will be beaten to death (Métraux, 1943).

When *Guaná* children were 8 years old they were sent to the forest for a whole day of fasting and silence, and came back at night. Old women pinched and pierced their arms with sharp bones, a torture which the children had to endure without complaint.

Girls' puberty rites.—Among the Pilcomayo and Bermejo River tribes, a girl's puberty is celebrated with dances and chants which evidently are intended to protect her against supernatural dangers. The manner in which spirits threaten her is ritually dramatized by the *Lengua*. Women strike the ground with long staves, at the top of which are attached bunches of deer hoofs, and beat the time of their chant while walking around a choir leader. This precentress goes "through many strange contortions of the body, at times pretending to tear out her own hair." The men also form circles, each chanting to the rhythm of a gourd rattle. Lines of boys dressed in rhea plumes and wearing masks representing evil spirits, weave in and out among the crowd, jingling bunches of hoofs, and from time to time uttering prolonged shrill cries. Whenever they come near the girl, the women drive them off (Grubb, 1913, p. 178).

Among the *Chorotí*, *Mataco*, and *Ashluslay*, some women—among the *Chorotí* the mother and a few companions—walk in a circle every night outside of the menstruating girl's hut, stamping their staffs while shamans shake their rattles and beat drums. The performance of this rite lasts for a month. (See Karsten, 1932, pp. 83–84.) During this period, the girl keeps her head and even her body covered with a piece of cloth and must remain secluded in her hut. Her diet is restricted, and she is warned against bathing or even fetching water. Menstruating women always observe a meat taboo and stay away from streams or water holes (*Mataco*, *Mbayá*, *Pilagá*, *Toba*, *Macá*).

The puberty ritual was not always elaborate. The girl, covered with a blanket, was relegated to a corner of the hut while men paid by her parents took turns chanting for several days to the accompaniment of a drum and of rattles.

The *Mbayá* and *Toba* celebrated the first menstruation of a girl, especially of a chief's daughter, with special dances, much chanting, and shaking of rattles. In the 18th century, a *Toba* chief gave his daughter a big feast that culminated in a ceremony in which the girl, who was covered with a cloth and surrounded by the warriors, tasted meat for the first time. Henceforth regarded as a "lady," she was emancipated from her father's authority. To add to his daughter's prestige, a chief might present her with a scalp soon after the feast (Muriel, 1918, p. 82).

A matured *Mocoví* girl could be recognized by a crownlike tonsure around her head, vertical furrows 2 inches (5 cm.) wide cut in her thick hair, and her completed tatooing (Baucke, 1870, p. 314).

A *Tereno* girl menstruating for the first time was painted and placed in a hammock, where she maintained a strict fast while her relatives danced and chanted around her (Bach, 1916, p. 89).

As the behavior of a girl during the critical period of puberty was thought to affect her character for the rest of her life, *Mataco* girls were urged to work hard in order to become diligent women.

Sexual life before marriage.—The attitude of the Chaco Indians toward sexual life of unmarried girls seems to have varied in the different tribes. In the Pilcomayo and Bermejo River tribes, young pubescent girls enjoyed complete sexual freedom. They were provocative, fickle, and brazen, and took the initiative in short-lived, amorous adventures. At night when the boys danced on the village plaza, the girls chose their lovers for the night by grabbing their belts or putting their hands on their shoulders and dancing behind them. Some girls had huts in the bush to which they took their lovers. On the other hand, Dobrizhoffer greatly praised the strict chastity of the *Abipón* girls, who remained virgins until they married.

Homosexuality.—Berdaches were very common among the *Mbayá*. They dressed and spoke like women, pretended to menstruate, and engaged in feminine activities. They were regarded as the prostitutes of the village.

Marriage.—There is little information on preferential marriage. *Pilagá* bands seem to be more strictly exogamous than those of the *Mataco*.

The age at which men and women form permanent unions seems to vary according to the culture; the Pilcomayo River Indians marry a few years after puberty, but the bellicose equestrian Indians (*Abipón*, *Mbayá*) take wives only when they are around 30. It was *Chamacoco* custom for a very young man to marry an old woman, and for an adolescent girl to become the spouse of an old man. The young man could desert his old wife as soon as he tired of her, but a girl had to wait for the death of her old husband.

A formal proposal among the Pilcomayo River tribes is often made directly by the girl, who tries to marry a lover of whom she is fond, but young men negotiate through a go-between. The *Lengua* emissary visits the girl's parents for several days, smoking tobacco. A *Mataco* seeks to win the approval of a girl's family through presents of money or cattle. A *Toba* suitor often brings game or fish to his sweetheart's hut to prove his hunting skill. In general, the consent of the girl's mother is more important than that of her father, because when she opposes the marriage, the case is deemed hopeless. In ancient *Abipón* society, marriage was often arranged between the girl's parents and the bridegroom, often against the girl's wishes. The prospective husband had to pay his parents-in-law horses, necklaces, woolen garments, and spears with iron points.

Child betrothal.—*Mocoví* parents often selected brides for their sons when the boy and girl were both quite small. A great deal of familiarity existed between betrothed children. The prospective bridegroom now and then presented his future parents-in-law with horses, skins, honey, and game.

Guaná parents also betrothed their infant children; both mothers took leading parts in the negotiations. The prospective husband was regarded as an actual son-in-law and took good care of his future parent-in-law. This custom later fell into disuse.

Mataco parents often arrange a match when their children are very young. Later if the couple divorces, they give as an excuse: "We did not want the marriage, our parents arranged it for us."

Marriage ceremonial.—Marriage in the Pilcomayo River region is contracted with a minimum of ritual. At most there is some drinking, and young men may dance in a circle around the new couple. These dances are probably of the same character as those executed by *Chorotí* boys to coax the girls to select one of them as a husband.

The *Lengua* celebrate marriage by a long feast, which ends when the bridegroom ceremonially kidnaps the bride. At a given time, he runs off with his bride and hides a short distance from the village. After a mock pursuit, the couple returns. They pretend to be exhausted and are surrounded by women who pour water over them to cool them.

The *Abipón* are the only Chaco tribe who developed a complex marriage ritual. The bride was taken to the bridegroom's hut by eight other girls under a sort of canopy of blankets. She was first greeted by her spouse, and then was brought back to her parents. Later she carried to her husband's hut all her belongings, in a symbolic gesture, since residence was matrilocal until a child was born. A boy seated on top of the hut beat a drum while the guests drank to their hearts' content.

A *Mocoví* desiring to marry a girl obtained her parents' consent and agreed on the bride price—a few jaguar skins, necklaces, one or two horses, and a cow. The marriage ceremony included a symbolic kidnapping of the girl and a sham battle with her kin. The parents then brought the girl to the bridegroom's hut notwithstanding her feigned or real resistance and her tears. They gave her away, saying, "You may have her." Once in her husband's house propriety required that she cover her head with a net and sulk in a corner. Women immediately came to express their sympathy and console her. Her husband did not talk to her, but her relatives-in-law pressed kind attentions upon her and urged her to eat, an invitation which she usually refused. Later her husband ordered her to stop crying and to bring him some object. Compliance was interpreted as a growing willingness to accept her condition, and her husband invited her to eat. Gradually she began to answer questions and her real or affected chagrin disappeared. The girl's parents would sometimes take her back to their hut for 2 or 3 months at a time.

The *Tereno* also had a definite set of marriage customs. A group of girls, painted and adorned with feathers and singing, carried the bows and arrows of the bridegroom from his house to the bride's. In the evening, dancing and singing young men accompanied the bridegroom to the girl's hut, where, giving him her right hand, she sealed the marriage.

In other cases, both families organized parties. After celebrating at home, the bridegroom and his relatives proceeded to the bride's hut, where the couple sat in a hammock manufactured by the girl for the occasion and drank together while women chanted songs.

Types of marriages.—Monogamy prevails in practically all Chaco tribes, but cases of polygyny are not rare. Plural wives live in the same hut only if the man feels assured that they will not quarrel. They usually belong to different bands (*Abipón*, *Toba*), and the husband visits each in turn. The first wife, especially when she is no longer young, often welcomes a companion to relieve her of part of her work.

Polygyny is more common among chiefs than among ordinary members of the band. Aaikolik, a *Toba* chief, had 10 wives, each in a different village, but in other instances a chief kept 2 or 3 wives in his own huts.

There are specific references to sororal polygyny among the *Mataco* (Pelleschi, 1881, p. 85), the *Mocoví* (Fúrlong C., 1938 c, p. 98), and the *Tereno* (Bach, 1916, p. 89).

Postmarital residence.—In most Chaco tribes (*Mbayá*, *Toba*, *Mataco*, *Chorotí*, *Kaskihá*, *Guaná*, *Chamacoco*), residence is matrilocal. The young couple live with the girl's parents permanently (*Chamacoco*) or until they have a child; then they may return to live in the man's village (*Pilagá*). Daughters are an asset, for their husbands must contribute to their parents' welfare. Sometimes a husband is so exploited that he abandons his wife (*Mataco*). Matrilocal residence enables the parents-in-law to interfere if their daughter is mistreated. When a *Mocoví* married within his band, the bride lived in his hut, but when he took a wife from another band, he settled with his parents-in-law, a situation that, according to Baucke (1870, p. 316), caused many family quarrels. Among the *Mataco*, an older woman marrying a young man generally follows him to his house.

A groom avoided his parents-in-law only among the *Mbayá*, who also stressed matrilocal residence. In this tribe, a husband left all his property and his slaves behind, but in his new home he was supported by his parents-in-law. Only *Guaná* women went directly to live in their husbands' villages. Among the *Paisan* and *Atalala*, residence was decided in advance by the families. At marriage, the girl received a few presents and some horses from her father (Camaño y Bazán, 1931, p. 340). *Kaskihá* and *Chamacoco* chiefs or chiefs' sons did not change residence after marriage.

Marriage ties are always strengthened by the birth of a child, even if the child later dies. Nevertheless, divorces are frequent and easy, and may occur for the most trivial reasons; a simple quarrel may end in a permanent separation. A man is prone to desert his old wife for a younger bride, and a young woman may leave her husband for a lover. Laziness or bad temper is often given as the justification of divorce. After separation, small children usually go with the mother; older children may stay with the father. Public opinion restricts matrimonial instability. Though divorces were easy, the *Mbayá* would say of a man who repudiated his wife too often, "He is a fool, he left his wife again." A man divorced several times sometimes took back his first wife. *Mbayá* noblewomen are said to have had paramours who even slept with them without causing the husbands any concern. A deserted *Abipón* woman accepted her fate without complaint and no one would intervene in her behalf. At the next drinking bout, however, her relatives might attempt to avenge the affront. *Mataco* challenge men who have taken their wives or force seducers to give them some compensation. A woman is seldom punished for her unfaithfulness.

Constant separations seem to have been an accepted *Chamacoco* pattern. A man sometimes married 20 or 30 times, and did not remain faithful to his wife until he approached old age. A woman who had lived with a man even for a short time would refer to him as "my husband" and cry for him at his death. The last wife felt proud of the homage of her former rivals. *Chamacoco* girls competed fiercely for men's attentions and love, and no married woman dared relax her vigilance for an instant if she hoped to keep her husband. These conflicts often ended in open fights which the man witnessed with perfect unconcern. As long as a union lasted, the partners showed each other a great deal of tenderness (Baldus, 1931 a, p. 61).

The status of women in most Chaco tribes is high, and they seldom are abused or beaten by their husbands. Women are by no means subservient, and are treated as if on an equal footing. In *Chamacoco* and *Guaná* society they have a privileged position and make their authority felt.

Mbayá noblewomen seldom left their houses without a chaperon, but, in the presence of their husbands, certain women could use bawdy language and sometimes take even greater liberties (Sánchez Labrador, 1910–17, 2:27). These are probably instances of joking relationships.

Death observances.—Most Chaco Indians so greatly fear the spirits of the dead that they scarcely wait until a person has actually passed away before beginning the funeral rites.

Preliminary rites.—As soon as the *Mbayá* suspected that someone was doomed, they hastily began the funeral preparations. Relatives painted a dying man, put his labret in his lip, and dressed him in all his ornaments; they trimmed a woman's hair and painted her face with designs. Meanwhile, a shaman strode up and down, occasionally pausing to squeeze the patient's stomach with great energy. Sometimes he walked around the village carrying a tuft of feathers in a last attempt to force the soul to return to the body.

When an *Abipón* was dying, the occupants of his hut immediately left, and old women, either his relatives or famed doctors, gathered around him to perform a magic dance accompanied by gourd rattles and "loud vociferations." An old woman or the leading female shaman struck a huge drum near the dying man's head. Water was sprinkled on his head. Meanwhile "married women and widows" in mourning-attire wailed and beat drums in the streets.

Often the *Mocoví* hastened a relative's death if, in their opinion, he was doomed or suffered. Women kept watch over a dying man and burst into laments when he expired. His wife, seizing his head and often striking him with her fists, said, by way of indirect praise, "You unfaithful and cruel man! Why have you left me? You were a skillful hunter and a gallant warrior. You have killed so many Spaniards! Where shall I again find your like? Don't you feel sorry for your children? Who is going to bring them food? From now on they will be obliged to wander around." For 3 or 4 nights all the women wailed in the funerary hut. During the day, the widow remained in her hut with her hair shaven and her head covered with a net.

The *Lengua-Cochaboth*, *Lule*, and *Lengua* were kind to the sick, but abandoned the hopelessly ill as if they had already passed away. The *Lengua* are loath to bury a person after sunset. Consequently, "whether he is dead or not, if there is no possible hope of his living through the night, his funeral begins in order that it may be completed before darkness sets in" (Grubb, 1913, p. 162). Asked by the missionary why they rushed to bury a man still alive, the *Malbalá* answered, "It does not matter, he will die on his way to the grave." When a *Chorotí* dies, shamans chant all night and women wail. *Payaguá* women alternately cried and danced around the funerary hut for 3 days, but men feigned indifference. The *Mbayá* women stood by the dead, wailing and singing his praises. Most Chaco Indians buried their relatives immediately after and sometimes before death.

If there were a suspicion of witchcraft, the *Abipón* removed and boiled the deceased's heart and tongue, and threw them to the dogs in order to harm the unknown sorcerer. The *Mocoví* covered the corpse of a victim of witchcraft with straw and burned it. Then the consulting shaman shot two arrows at the dead man's throat and one at his heart while uttering an incantation. Thus the guilty but unidentified sorcerer could not escape his fate (Baucke, 1870, p. 355).

The *Lengua* mutilate the corpse, before or after placing it in the grave. A wound is made where the evil spirit is supposed to have entered the body. They put a dog's bone, a heated stone, an armadillo's claw, and red ants in the gash. The stone is supposed to go to the Milky Way and later to fall as a shooting star on the sorcerer. The armadillo claw burrows underground and contributes to the destruction of the evildoer. These Indians also stop the mouth and the nostrils of the corpse with wax or clay.

When the *Ashluslay* suspect witchcraft as a cause of death, they perform a similar rite to incite the victim to kill his murderer. They cut flesh from the corpse's thigh and feed it to a dog, which they kill at once. They rub the deceased's face with magic herbs, pierce his chest with burning arrows, and drive a glowing stone into it. They throw heated arrows into the air, and shout. Finally they whip the corpse with thorny branches and lay it in a grave with the dead dog and a bird nest. Before covering the grave with branches, they break a pot full of clay on the deceased's back, and everyone clamours loudly (Vervoort, 1932, pp. 282–283).

Disposal of the dead.—Most Chaco Indians bury the corpse before rigor mortis sets in, in a flexed or squatting position in a shallow grave. The *Lengua*, it is said, broke the dead man's neck by bending the head down on the chest.

The *Lengua* strapped the body to a pole and carried it to a shallow grave at the edge of a wood, where they always turned it toward the west. They trampled the grave and covered it with thorny plants. The *Chorotí* erected a flimsy structure over the grave, and placed a calabash filled with water nearby.

Formerly, the *Mataco* placed the corpse on a platform in a tree (pl. 70) until the flesh rotted away, then they collected the bones and buried them in a communal cemetery. Sometimes they put the body in a grave which they left open until the bones were clean, then shifted the skeleton into a lateral niche, closed it, and filled the grave with earth. In some cases the corpse was buried at once in the lateral niche. A calabash full of water was deposited near the corpse.

Cremation is reported in the area; the *Toba* practiced it as a precaution when there was a suspicion of sorcery.

The *Chamacoco* extend the body and bury it face upward. Close relatives dance around the grave, shaking their rattles and jingles, then cover it with tree trunks and branches on which they leave the deceased's belongings.

The *Toba* and *Pilagá* inter their dead in a grave which they fill with soil, successive layers of grass and cover with palm trunks (pl. 69, *center*). Those who dig the grave retain some of the goods of the dead.

The *Payaguá* buried the dead on a small island. The corpse was interred extended or squatting with the head often covered by a vessel (Rengger, 1835, pp. 140–141). They heaped bell-shaped vases on a bulrush mat placed over the grave. Some of these vessels were pierced with holes "as outlets for the souls." A roof of mats sheltered the grave. Like other *Guaicuruan*-speaking Indians, the *Payaguá* "collected the bones of their dead and placed them in cemeteries" (Aguirre, 1911, p. 358).

The *Mbayá* wrapped the corpse in a blanket and carried it on horseback to a mortuary hut, built like an ordinary dwelling, in which each extended family owned a piece of ground marked off by posts. Women were interred with their bests jewels, and men with their silver ornaments and their weapons decorated with feathers and flowers. The sepulcher was covered by a mat on which were laid a few ornamental vases, often trimmed with beadwork. Carved posts from the deceased's hut were planted by his grave (Frič, 1906 b).

A person who died far from his village was buried in a temporary grave until his relatives could transport his bones to the communal cemetery. Modern *Mbayá-Caduveo* inter the dead in their own dwellings, but after 10 or 12 days unearth the remains, clean the bones, and transfer them to the family plot in the band's funeral house.

Among the *Mocoví*, the corpse, wrapped in a skin or a net, was buried in a shallow grave 1½ feet (0.45 m.) deep. The pit was covered with logs and branches on which earth was scattered. Nearby were placed a plate with food and a water jar. In the case of a child, one hand remained uncovered to receive the food which its parents brought.

The *Abipón* temporarily interred the dead in shallow pits covered with thorny boughs, and left a pot, garments, and a spear on the grave. The grave was dug by the women who also carried the corpse. Like the *Mocoví*, they subsequently brought the bones to regular cemeteries located in the woods and distinguished by blazed trees. When a man perished far from home, his bones were transported back to his family burying ground. The bones of a chief were transferred with much pomp. Wrapped in a skin, they were carried under a canopy by six horsemen preceded by shamans mounted on splendidly trapped horses and by a troop of fully armed warriors. The bodies of warriors fallen in battle were also brought home with great ceremony and, arranged in a hut as if still alive, they were honored with funeral rites lasting 9 days.

Destruction of the property of the dead.—The *Mbayá*, *Abipón*, *Tereno*, *Lengua*, *Chorotí*, *Mataco*, *Toba*, *Lule*, *Vilela*, and probably all other Chaco tribes, set fire to the house and sometimes to the whole village where someone had died, and hurriedly abandoned the ghost-threatened place. The *Mbayá*, who had just completed a new house built under the supervision of Sánchez Labrador (1910–17, 2:48), destroyed it soon afterward when one of them died there.

It was customary to destroy a dead man's property. The *Mbayá*, for instance, broke all his vessels and burned his mats and other property. The *Mbayá*, *Abipón*, and *Vilela* also slew the deceased's horse and left it by his grave. It is reported, though not confirmed, that the *Mbayá* killed the dead person's favorite slave.

Protection from the ghost.—*Lengua* mourners, fearful of the ghost, often sought the hospitality of some other band. These Indians believed that the chilly spirit of the departed man would return to his deserted camp looking for a fire. Lest the disappointed spirit cast cold ashes into the air and so bring bad luck upon the living, the ashes were always collected and buried before the village was abandoned. After burying a person, the *Lengua* drank hot water, washed themselves, and purified the air with a firebrand of palo santo, which they carried around the village.

Mourning rites.—The *Abipón* funeral laments seem to have been most spectacular. For 9 days all women, except the unmarried girls, gathered on the plaza with disheveled hair and, forming a long line, "leap like frogs and toss about their arms." They wailed to the sound of rattles and drums, trilling, quavering, and groaning at all pitches, and uttering shrill hisses. They chanted about the dead and clamored for vengeance. They were rewarded with a few gifts. At night a group of women met in a house where they shook rattles and, directed by a female shaman who alternately struck two large drums, sang funeral songs. There was hardly a moment when the village was not filled by these vociferous expressions of grief. On the 9th day the laments gave way to a festive chant.

At any time if women happened to remember a dead relative, they might suddenly drop their chores to wail. *Abipón* women turned their faces toward the deceased's grave and chanted and shook a rattle. Often they were joined by other women.

Among the *Abipón*, the closest female relatives of a dead man shaved their heads, and widowers cropped their hair with many ceremonies and wore a woolen cap (hair net) until it grew out again.

Abipón and *Mocoví* widows covered their heads with a net bag, like a hood, which they removed only when they remarried.

Mbayá mourners, male and female, cut their hair and observed a mourning period, the length of which depended on the status of the deceased. During this time, they lived on a vegetable diet, and laid aside all their ornaments and paints. If possible, they remained at home to wail freely or engage in quiet activities. At last, urged by their chief to forget the dead man and to decorate themselves as before, they resumed normal life.

The ritual wailing for the *Mbayá* dead was heard before dawn. Bereaved women sat on the ground and, facing the east and holding both arms stretched over their heads, swayed back and forth, crying and proclaiming the achievements of the deceased or, in the case of a child, his most insignificant actions (Sánchez Labrador, 1910–17, 1:27).

Among the *Tereno*, the widow and mother of the deceased mourned for a month. They cut their hair short, lacerated their breasts with sharp pieces of wood, and rubbed earth over their bodies. They sat naked in a corner of the hut, never raising their eyes from the ground, refusing to speak, and wailing at sunrise, midday, sunset, and midnight.

After the death of a *Guaná* chief, four women with disheveled hair walked around the village plaza wailing and chanting while a fifth stood among the others beating a small drum. At night a musician drew lugubrious sounds from a pipe or a trumpet (Sánchez Labrador, 1910–17, 2:292).

Among the *Lengua*, the near relatives of the dead lived in isolation for a month, after which they purified themselves with hot water, and sang and danced around a fire. Boys dressed to represent dragonflies introduced a comic element into the feast by their antics and mimicry of these insects.

Mataco, *Pilagá*, and *Vilela* widows remain closeted in a dark corner of the hut or in a special compartment (pl. 69, *top*, *bottom*) for a varying period—*Mataco* from 6 to 12 months; *Pilagá* 3 or 4 months; and *Vilela* only 8 days. Widows shave their heads and cover them with a cloth. *Isistiné* mourners might not scratch their heads with their fingers. Among the *Mataco*, the closest female relatives of the dead abstained from various foods so long as water remained in the jar left by the corpse. Mourners often smear their faces with black paint. The *Chamacoco* obtain the same effect by not washing their faces for a period, the length of which depends on their relationship to the deceased. The *Lengua* trace black streaks under the eyes to represent tears.

Taboo on names and words.—The *Toba*, *Abipón*, *Mbayá*, *Tereno*, *Chamacoco*, and *Mataco* strictly taboo the name of a deceased person. To pronounce it was regarded by the *Abipón* as a willful insult which could lead to violence or even bloodshed. If the name of the dead person were a common word or phonetically resembled one, the term was dropped and an old woman invented a synonym. Dobrizhoffer (1783–84, 2:301) remarks that in the village where he lived the word for jaguar changed three times in 7 years.

The near relatives of the deceased or, if he were a chief, the members of the extended family, took a new name (*Vilela*, *Abipón*, *Mocoví*, *Mbayá*, *Lengua*, *Macá*, *Tereno*), hoping to deceive the ghost, who might have been tempted to return and to drag his fellow tribesmen with him to the afterworld (Azara, 1809, 2:153): Among modern *Tereno*, only children of the deceased change their names.

Commemorative rites.—The *Abipón* and *Mbayá* held commemorative ceremonies over the graves of their dead. The *Mbayá* renewed the mats which sheltered the sepulchers. When honoring the memory of the dead, the *Abipón* reenacted part of the funeral rites. *Tereno* women went to the cemeteries to sweep the tombs and to converse with their dead; as evidence of grief, they lamented and threw themselves on the graves.

Among the *Matará* of the lower Bermejo River, relatives celebrated a special feast on the first anniversary of a death. Each guest brought a dead rhea or, if other persons in the village honored their own dead at this time, they brought several. Young girls carried the rheas in a procession and presented them to the hosts. The favor had to be reciprocated in similar circumstances; remissness could cause a war; indeed, the debt contracted by a host was so sacred that if he died before repaying it, his heir had to fulfill the duty. The rites performed for the souls lasted 3 days, and were punctuated by outbursts of laments and tears. The ceremony ended with dancing and drinking.

Life after death.—Little is known about Chaco ideas concerning the afterlife of the soul. There is a general belief that ghosts linger around a camp and are dangerous, or at least unpleasant to meet. There are also vague beliefs regarding a Land of the Spirits. Some *Lengua* place it in the west and describe it as a true city in which the souls are grouped according to family or band relationships and continue their mundane occupations. The *Mataco* and some *Lengua* locate their afterworld beneath the earth, where the dead continue to live exactly as they did when alive. The *Toba* afterworld is a special heaven where the sun always shines and men and women make merry.

The *Mbayá* told Sánchez Labrador (1910–17, 2: 54) that the souls of the dead remained near their funerary abode and spent their time dancing and enjoying themselves without ever feeling tired. Some *Mataco* philosophers believe in metempsychosis: souls become successively ghosts, birds, spiders, and bats before they vanish forever.[47]

Notions of reward and punishment after death are foreign to Chaco Indians. The *Lengua*, however, did not like to leave this world without atoning for wrongs done to a fellow member of the band, lest the quarrel be continued in the hereafter.

The *Abipón* believed that certain ducks which uttered a shrill hiss were ghosts.

ESTHETIC AND RECREATIONAL ACTIVITIES

Art.—See Clothing, Tattooing, Painting, Pottery, Weaving, and figure 38.

Games and sports.—The favorite game of the Chaco Indians is a kind of hockey in which the men of one band are teamed against those of another (pl. 72). The play is decidedly aggressive, and the game is regarded by the Indians themselves as a substitute for open warfare.

The hockey stick is curved at the end, and the ball is of wood or, among the *Mbayá-Caduveo*, of plaited rope. The field is either a clearing in the bush some 100 yards (92 m.) long or a sandy beach near a river. The two goals are marked by heaps of branches. Rules are simple: The ball, which is hit from any direction, must touch the adversary's goal. The two teams agree beforehand upon the winning score. If they decide, for instance, to play for four points, a team must make a total of four scores to win. Each time the opponents score a goal, it is deleted from the score of the leading team. Interest in the game is stimulated by high gambling stakes, laid by the leaders and members of each team.

The game, lacking a referee, is at times rough, and several players are always injured. As a protection against the blows, the *Mataco* wear shin guards made of rows of sticks tied together with twine.

Both *Abipón* and *Mocoví* played a game like the North American snow-snake, which is described by Dobrizhoffer (1784, 2: 58): The instrument is a round piece of wood about 3 palms (30 inches) long, thick at the extremities and slender in the middle. It is thrown forcibly at the mark "in such a manner that it strikes the ground every now and then, and rebounds . . . Fifty and often a hundred

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[47] According to a missionary (see Campana, 1913, p. 324), only the souls of those who are stabbed in a drinking bout in the afterworld are changed into a mosquito or a fly. When the fly dies it becomes an ant, which turns into a grass that finally dries up and reverts to earth.

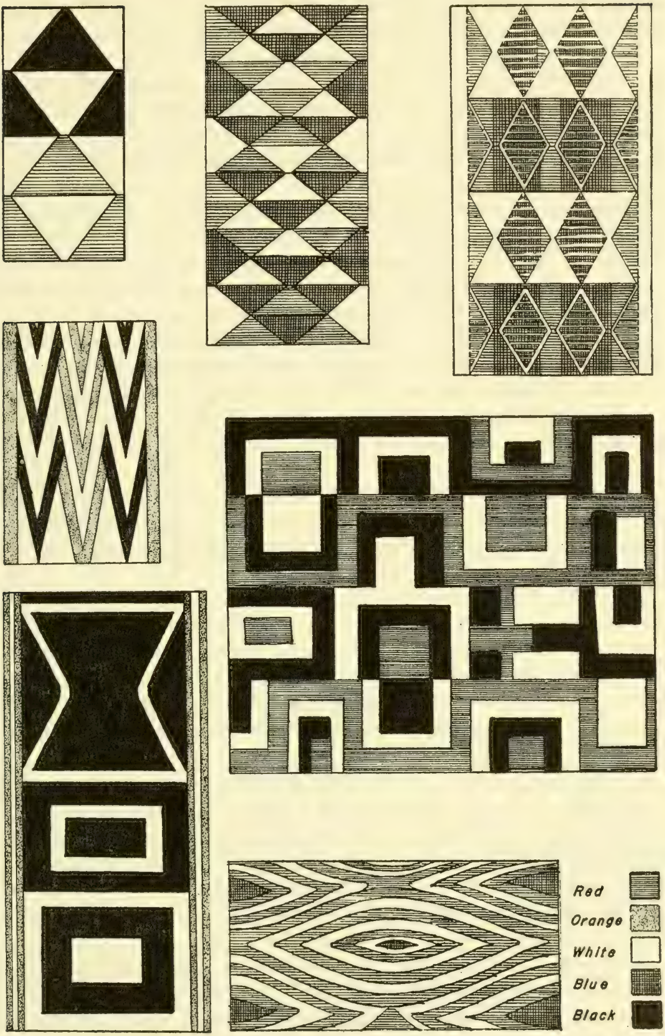
Red
Orange
White
Blue
Black

FIGURE 38.—Motifs on *Pilagá* belts and woolen bags. (Métraux collection, American Museum of Natural History.)

men stand in a row and throw this club by turns, and he who flings it the farthest and the straightest obains the prize or receives praises." (For the *Mocoví*, see Baucke, 1870, pp. 479–480.)

On the occasion of the visit of some other band, the *Mbayá* and *Mocoví* organized boxing matches. Among the *Mbayá* the competitors, most of them young men, marched toward the plaza in a line accompanied by an older coach, and sat facing their opponents. Older men, armed with spears, formed a wide circle around them. Then one of the young men, entirely naked, with jingles or peccary hoofs hanging from his wrists, walked around the ring. A member of the other group, responding to the challenge, rose and also walked around the plaza. The adversaries advanced toward each other, retreated and dodged "like fighting cocks"; finally, they exchanged violent blows until one of the two coaches came to separate them. Then new fighters took their place. When all of them had met their adversaries, they left the plaza in the same order as before.

In the boxing tournaments of the *Mocoví*, youths of different bands fought each other on moonlight nights. Children were trained in boxing from an early age, and were matched against the boys of other households in their own band.

Battles royal in which groups of women or men boxed with their own sex, were one of the main entertainments at the feasts celebrated by the *Payaguá*, *Mocoví*, *Mbayá*, and *Guaná*. Only *Payaguá* men and women joined in the same battle.

The *Mbayá* considered racing a test of virility. A formal race between young men was announced a day in advance by a young boy who beat a drum and chanted, shaking a gourd rattle. The competitors, painted and decorated with feathers, paraded around the village before the contest. To dispel fatigue after the race, they jabbed themselves with awls of jaguar bones. The vigor of their jabs added greatly to their prestige.

The *Mbayá*, like the *Araucanians*, adopted several Spanish sports along with the horse. For instance, a galloping horseman would try to thrust a sword through a ring hanging from a rope (peg-pulling). During feasts *Mbayá* warriors demonstrated how they attacked their enemies on horseback and how they chopped off their heads. At their meetings, the *Mocoví* organized horse races on which they laid heavy wagers.

Young people all over the Chaco are fond of a simple game in which a shuttlecock is kept in the air as long as possible by hand. The shuttlecock is made of maize leaves with a feather stuck in the middle. The winner is he who does not allow the shuttlecock to die (i. e., to fall) (*Mbayá*).

The *Mbayá* had a kind of ring-and-pin game which is described by Sánchez Labrador (1910–17, 2: 11) as a set of 56 or 60 rings connected by a string. These were thrown into the air and had to be caught on a stick. The players sat in a circle and each in turn tried his luck once. The same game is played by the *Chamacoco.* (See Baldus, 1931 a, p. 111.)

Mbayá girls and women played a game in which one of them, holding a pair of horns, pretended to be a deer and defended herself against harassing "hunters."

A popular *Mbayá* amusement at feasts was to toss a child in a blanket.

Gambling.—All Pilcomayo River Indians are rabid gamblers. Their favorite game is called tsuka or tsukok (from the *Quechua* chunka, "10"), which may be played by 2, 4, or 8 persons. A series of 21 holes called "houses" is made in the ground, the 11th hole being a "river" or "lake" and separating the field of the players. Small sticks, called "sheep," are placed in the holes as counters. Planoconvex or concavo-convex sticks with burned ornaments on the convex side are used as dice (fig. 39). A player taking 2 dice in each hand, throws them together, striking his left shoulder with his right hand or uttering a gutteral cry. If 4, 2, or no sticks fall with the convex side up, the scores are respectively 4, 2, or 1, but if an odd number has the convex side up, the player does not score and the opponent receives his turn. Each player moves an arrow forward according to his score, and, when he enters his adversary's field, captures the sheep in every hole he reaches. There is a penalty for falling in the "river." The game is won when someone captures all the sheep and the opponent's arrow. *Quechua* numerals are used to reckon the score, a convention which indicates beyond doubt the Andean origin of the game.

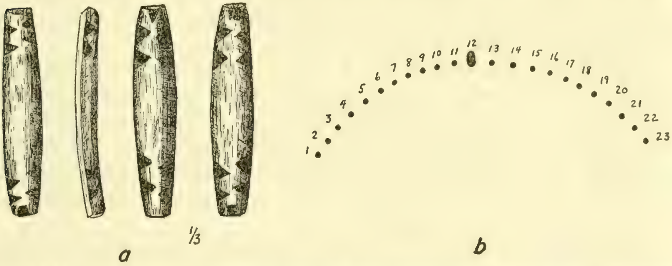

Figure 39.—Tsuka game, *Choroti.* *a,* Dice; *b,* arrangement of holes for game. (Redrawn from Rosen, 1924, figs. 172, 173.)

Children's games.—Children play a great many games, such as the following:

A "deer" killed by a "jaguar" is defended by "dogs" against the preying "vultures" (*Toba*).

A "jaguar" fights against pursuing "dogs" (*Toba*).

Imitating the noise of peccaries by striking together two pieces of wood, boys run after "dogs" or "hunters" (*Toba*).

Children form a long line holding each other around the waist. The leader carries a firebrand and tries to burn the last in line, while the line twists and turns in an attempt to save the threatened boy (*Toba*). A *Mbayá-Caduveo* variation of this game has been described, wherein the attacker has a straw club and is resisted by the leader of the line.

Children stand with widespread legs while one of them, pursued by a "hunter," tries to escape by crawling between his comrades' legs (*Caduveo*).

Children either hop or jump with their feet drawn together, turning in a circle or spiral until the line is broken.

Mataco girls in a line revolve in a spiral until they form a compact group. They represent a growing tree. A boy cuts down the "tree" by striking the girls on their legs. The group oscillates and then falls down.

A boy stands in the center of a circle of boys who lie on the ground and with their feet push him to and fro without allowing him to fall. The game symbolizes the "wasps" (*Mataco*).

Children in two lines form a tunnel through which a "skunk" passes at full speed. Everybody falls down asphyxiated, but the "skunk" reanimates his victims by blowing on their faces (*Mataco*).

A line of boys is attacked by a "serpent" that tries to bite off the last one. He renews his attacks until a single boy remains, who must kill the "serpent" (*Lengua*). The same game is played by the *Mataco*, who call it "purchase of a girl."

A "monkey," pursued by a "jaguar," climbs for refuge on the backs of his comrades, the "trees," who stoop in a long line. The "jaguar" may only pounce if he is exactly under the "monkey," and he may not jump over the line (*Lengua*).

To the tune of a song, little squatting girls jump up and down as long as they can without toppling over (*Toba*, *Pilagá*, *Mataco*). (Pl. 71, *bottom*, *right*.)

Boys form a line. One throws a stick and the others try to strike it with their sticks as it reaches the ground (*Chorotí*).

A boy throws his wooden "bolas" as far as he can; other children throw their own "bolas" at his so as to entangle it. The one who succeeds, keeps the "bolas" of his adversary (*Chorotí*, *Mataco*, *Toba*).

Toys.—In a list of children's toys, miniature weapons and implements come first. A favorite plaything is a "gun" consisting of a bamboo tube with a longitudinal slit into which a flexible bamboo strip is introduced as a spring to shoot pellets. Children also have many noise-producing objects, such as buzzers and bull-roarers.

Mataco, *Ashluslay*, and *Tereno* children are fond of stilt walking. They also roll hoops made of grass. All Chaco children are expert in making complicated string figures (cat's cradles). (Pl. 71.)

Everywhere dolls are made of the knuckle bones of animals to which two shell disks are glued to represent the eyes (fig. 40, *c*). Women also model dolls of unbaked clay, which represent people or, less frequently, animals. These are highly conventionalized; for instance, a "woman" is a conical clump of clay with two breasts and with the hair and the facial tattooing painstakingly indicated by engraved lines (fig. 40, *a*, *b*).

The *Caduveo* have wooden dolls which they identify with the Christian saints, but which seem not to pertain to a cult (pl. 65). Even though adult women have been observed speaking to these images, Boggiani (1895) and Frič (1913) regard them as mere toys.

Singing.—Chants give all magical rites their efficacy and the singing of a monotonous and endless melody is deemed sufficient to curb supernatural forces. Shamans are men who possess chants with mystic powers. Songs also accompany most recreational dances. Choirs are very much in evidence at drinking bouts and annual festivities. Little girls have a small repertoire of songs associated with their games.

Grubb (1904, pp. 95–96) says of *Lengua* singing:

> The men's voices are loud, rough, slightly tremulous, and not at all flexible. Baritone is the most usual male voice, the compass being "B" in the second space below the stave to "D" in the fourth line. The voices of the women are high-pitched.

Mataco and *Pilagá* songs are a succession of monotonous, deep chest tones followed by a series of pitch and volume changes. *Abipón* singers varied the tones according to the subject of the song. Expert singers "by a quicker motion of the throat, suspended the song for a while, now protracted it and now interrupted it with groans or laughter or imitations of a bellowing bull or of the tremulous voice of a kid."

If Dobrizhoffer is correct (1784, 2:428–432), the *Abipón* declaimed epic "songs" during victory feasts, in which they enumerated in "a regulated number of verses" and with incredible detail, all their past military deeds. "By appropriate words and modulations of the voice" they expressed indignation, fear, threats, or joy. The *Mbayá* men would sing the praises of the chiefs. When a chief visited some colleague, courtesy required that a singer improvise a song in his honor extolling his courage, his skill as a ruler, and also the love his subjects bore him and the fear he inspired in his enemies.

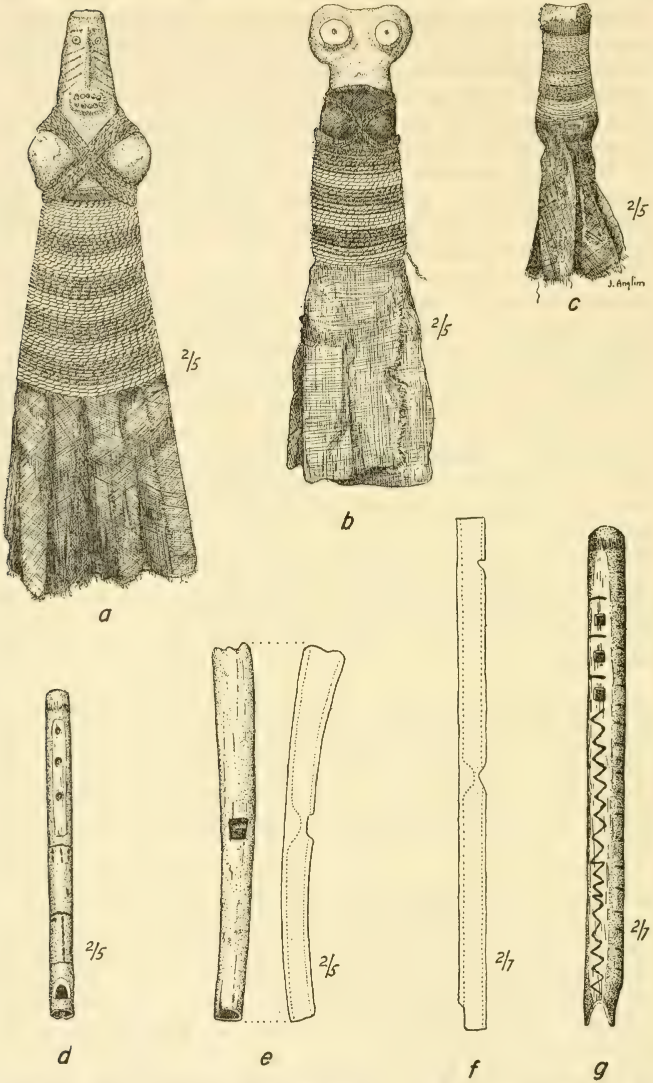

FIGURE 40.—Chaco toys and musical instruments. *a, b, Mataco* and *Pilagá* clay dolls (Métraux collection, American Museum of Natural History); *c, Pilagá* doll of cow knuckle; *d, Chorotí* reed flute (redrawn from Rosen, 1924, fig. 163); *e, Mataco* whistle of bird bone (Métraux collection, American Museum of Natural History); *f,* cross section of *Mataco* duct flute (Métraux collection, American Museum of Natural History); *g, Pilagá* notched flute (Métraux collection, American Museum of Natural History).

Of the "epic songs" of the *Mbayá-Caduveo*, Manizer (1934, p. 307) writes:

> They are in a dactylic form; the monotonous melody changes into a high-pitched and long drawn note.

The shamanistic chant of these Indians

> begins in a low tone which grows into pathos and vociferations. Then follow rhythmic sentences in which animal spirits are enumerated. They are continued by a high and prolonged falsetto which decreases harmoniously on a low tone which is prolonged until the chant dies off, but starts again on a high-pitched note. [Manizer, 1934, p. 308.]

Baldus (1931 a, p. 108) states that *Chamacoco* songs are melodies without words and often imitate the cries of animals or the sound of a storm. They are based on a 3-beat rhythm. When several persons sing simultaneously, each sings individually, unconcerned by what the others do. In addition, the *Chamacoco* have soloists who perform before audiences. Women neither sing nor chant, and the only music produced by them is a funeral lament with some rhythmic qualities.

The songs of the Pilcomayo River tribes have a series of meaningless syllables or only a few sentences, which are repeated to satiety. Cardiel (1915, p. 50) tells us that the *Lule* and *Isistiné* sang for a whole night a song consisting only of two words, "Peitolo yavali" (run into the valley). He quotes two *Paisan* songs with the following words, "The fox is coming," and "The shaman arrives, he is welcome." In solo songs to drive away bad spirits, the themes are somewhat longer than those of the feast songs and may change as many as four times (*Lengua*). (See Grubb, 1904, p. 97.)

During *Lengua* feasts, choirs relieve one another, so that the music never ceases.[48] Some *Pilagá* songs sung by women at parties are decidedly obscene. As songs pass from tribe to tribe, the Chaco repertoire is very uniform within large areas.

The importance of singing and chanting in Chaco societies is shown by some practices of the *Mataco*, *Pilagá*, and *Chamacoco*. To become a good singer, a *Mataco* or *Pilagá* man must dream of some singing bird—actually a spirit in the guise of a bird—and then eat the meat of birds reputed to be good singers. Many young men go to the bush in search of revelations of songs. A *Pilagá* may bequeath his song to his son, who sings it on special occasions, such as a scalp dance. Singing for days on end without stopping is for *Chamacoco* youths a test of manhood. The singer holds a gourd rattle and dances continuously until a flow of blood from a broken vein demonstrates that he has reached the limit of his strength. Fearing the hardship of the ordeal, some young men secretly pierce their gums to simulate a hemorrhage.

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[48] "The theme of every chant is short, and even the most joyous is in a minor key. The theme is repeated indefinitely; if it be a quick measure, it is kept up till the singers lose their breath; if it be slow, till they are tired, when, if the occasion be a feast, which may continue sometimes for days together, they are relieved by another choir of singers, so that the music may not cease" (Grubb, 1904, p. 96).

Musical instruments.—The only musical instruments native to the Chaco seem to have been a few idiophones (rattles and jingles) and the musical bow. The origin of the Chaco drums, flutes, and whistles must be sought in the Andean area.

Rattles.—Hoof rattles are fixed to the end of long poles which the women (*Mataco*, *Chorotí*, *Ashluslay*, *Toba*, *Pilagá*, *Lengua*) strike on the ground when dancing around a menstruating girl. When performing a cure, *Mataco* shamans wear jingles of deer hoofs or of snail shells around their waists or their ankles. Everywhere mothers amuse their babies with bunches of deer hoofs. Jingle rattles of fruit shells are found among the *Sanapaná* and *Chamacoco*, but are lacking in the southern tribes. From the Negroes of Matto Grosso, the *Mbayá-Caduveo* have acquired the timbrel rattle: metallic disks strung on a wire stretched between the limbs of a forked stick.

The gourd rattle is the accessory, par excellence, of the shaman, but its use is not his exclusive privilege. Every adult male among the *Toba* has a rattle which he shakes when he chants. *Chamacoco* women are forbidden to handle the sacred rattles. Most Chaco rattles are hollow gourds from which the seeds have been removed through a hole, which is then stopped with wax. The stem of the fruit forms the handle, and sometimes it is perforated and closed with a wooden peg to which a red wool loop is attached. The sides of rattles are often pierced with long cactus thorns (now nails or wires), which add a faint metallic quality to the sound—an improvement restricted in South America to the Chaco area. The *Mbayá-Caduveo* and *Chamacoco* rattle has the handle lashed to the gourd. Some *Chamacoco* rattles are made of two turtle shells fastened together with a string (Boggiani, 1894, fig. 33). Rattles, as a rule, are undecorated except for rudimentary incised or burned lines and some glued-on beads. The ancient *Kaskihá* painted theirs with red, black, and yellow streaks and trimmed them with seeds, feather tassels, and animal teeth (Cominges, 1892, p. 193).

Drums.—The Chaco drum is merely a cooking pot or sometimes a wooden mortar half filled with water and covered with a rawhide head. The drummer sits with his drum between his legs or, if he prefers to stand, lashes it between two upright digging sticks. He always uses a single stick (pl. 71). Some musicians accompany their beating with rhythmic body movements which make the jingles of their belts tinkle. Among the *Mbayá*, drummers held the stick in one hand and shook a gourd rattle with the other; they alternately struck the middle and the edge of the drum. Various traditional beats were distinguished by special names, such as the "beat of the wild vulture," or the "beat of the jaguar."

Bull-roarers.—The *Mbayá-Caduveo* have bull-roarers decorated with their characteristically involved designs. They are said to whirl them during funeral ceremonies, but, like the *Mataco*, they give them to the children as playthings. Children in most Chaco tribes make for their own amusement buzz-disks with pieces of calabash or potsherds.

Clarinets.—The clarinet, probably a post-Columbian instrument, was already popular in the Chaco in the 18th century. The *Abipón* were roused to battle by the sound of clarinets, and their war parties were said to have had more trumpeters than soldiers. The mouthpiece consists of a reed with a tongue cut in it, which nowadays is fitted into a sawed cow horn. Formerly, an armadillo tail (*Abipón*) or a gourd served as the bell. Baucke (1870, p. 221) refers to trumpets of light wood used by the *Mocoví.* When they performed a cure, *Payaguá* shamans blew into a calabash 2 feet (0.6 m.) long and open at both ends, which served as a rudimentary trumpet to modify the tone of the voice.[49]

Flat whistles.—Characteristic of Chaco culture are the flat wooden or resonator whistles which men suspend as ornaments from their necks (figs. 40, 41). These have the blowhole on the lower edge and two stops on the sides. One surface is invariably engraved with a starlike design within a circle and with a cogwheel motif around the edge. The *Chamacoco*, *Moro*, and *Mbayá-Caduveo* whistles are of the same type but larger and shaped differently. They are either rectangular or square with the upper and lower edges slightly concave. Many features of these resonator whistles seem to have had an Andean origin, though wooden whistles of this shape have never been found in Perú.

Serere whistles.—The serere whistle of the *Chiriguano*, a long diamond-shaped piece of wood perforated lengthwise, has been crudely copied by the *Mataco* and *Toba* who live in close contact with these Indians. The whistle is held vertically against the mouth so that the player may blow across the larger hole while closing the other with one finger.

Animal skull whistles.—*Mataco* and *Chorotí* make crude whistles of rodent skulls with all the orifices except the foramen magnum stopped with wax.

End flutes.—End flutes are comparatively rare in the Chaco. They are made of bamboo and provided with three rectangular stops, drilled on a planed surface, and a thumb hole. All the septa of the reed are removed.

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[49] "Aplica después la borda del agujero mayor entre la nariz y el labio superior de modo que la boca queda expedita en medio del agujero y habla fuerte como cantando, de forma que las voces suenan de un modo extraño y vivo" (Azara, 1904, p. 356).

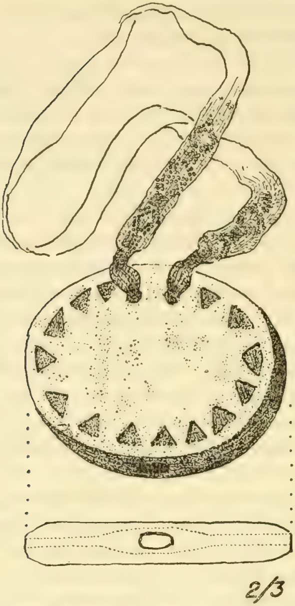

FIGURE 41.—*Pilagá* flat wooden whistle. (Métraux collection, American Museum of Natural History.)

Notched flutes.—Most Chaco flutes have notched blowholes and therefore may be called either notched flutes or, like their Andean prototypes, quenas (fig. 40, *d*, *g*). Izikowitz (1935, p. 314) distinguishes two types of quèna in the Chaco: that which is identical with end flutes with a notch added; and that which has "no planing or carving but has a stop for the little finger which may be placed either to the left or the right, evidently depending on which hand the musician holds nearest the distal end. It has six stops, the top one being placed at the middle of the flute."

Duct flute.—In their magical performances, *Mataco* and *Chorotí* shamans use duct flutes (bird-bone whistles) without stops (Izikowitz' *Mataco* whistles (fig. 40, *e*, *f*.)). These instruments are so constructed that the air current blown at one end is directed by a deflector, in this case a wax plug, against the sharp edge of the sound orifice, which is located near one of the ends or toward the middle of the flute. Bone duct flutes are also known to the *Ashluslay*, *Lengua*, and *Chamacoco*, but there is no reference to their ceremonial usage in these tribes. The flutes of rhea bone of the ancient *Mbayá* probably belonged to the same category of instruments. Flutes of this type are occasionally made of bamboo or wood (*Mataco*, *Toba*). The *Chamacoco* hang a bunch of these flutes from their necks.

Plug flutes.—Both *Tereno* and *Mbayá-Caduveo* have reed flutes with a wax plug, four or five stops, a thumb hole, and an obliquely cut proximal end. Such instruments, typical of tropical South America, probably came to the northern Chaco with the new *Arawakan* invaders (Izikowitz, 1935, p. 354).

Panpipes.—The *Zamuco* in the *Chiquito* missions played the panpipes, which they certainly borrowed from the *Chiquito*.

Stringed instruments.—The musical bow is a favorite instrument of young men (*Mataco*, *Toba*, *Lengua*, *Guaná*), who spend many leisure hours playing it (pl. 71). It consists of two interlocked bows strung with horsehair. One bow is held against the teeth and the other used like a fiddle bow. The faint sound is audible only to the player. The *Mbayá-Caduveo* make guitars and violins, the parts of which they paste together with a glue extracted from an orchid bulb.

Dancing.—A characteristic aspect of Chaco culture is the importance attached to dancing. During seasons of abundant food and favorable weather, young people dance every night from sunset to dawn. Such dances are mainly recreational. On particular occasions, dances have ceremonial value; these are described in the section dealing with religion.

The principal diversion of young men of the Pilcomayo and Bermejo River villages is a dance in which the participants, dressed in their best attire, form a circle, each embracing his neighbor's waist. One dancer starts a low chant and everybody stamps the ground rhythmically with the right foot. After a few notes, the other dancers begin to sing. The rhythm grows livelier until the stamping turns into a rapid walk. Soon the girls, at first passive on-lookers, participate. Each places herself behind some favorite dancer and, seizing his belt or putting her hands on his shoulders, dances with him. Several girls may attach themselves to a popular man.

In another type of dance, men and women hold one another's shoulders or waists and form a long line. As the dancers move forward and backward, the dance leader standing out in front points at a dancer at each end of the line, who steps out and forms a new line behind him. This is repeated endlessly.

In the *Toba* nomi dance, men form a semicircle with their arms on each other's waists. They run alternately to the right and left while moving forward across the dancing place, where the chain of performers is broken. Then in the same way they move back. The dancers themselves loudly chant the measure of their steps.

The *Mataco* perform a unique variant of this dance: Once the semicircle has started moving forward, it breaks up suddenly into several groups of dancers, who first stamp in the same spot, then start to run, and form a spiral which grows tighter and tighter. When all movement, except stamping, is impossible, the spiral begins to unwind, at first very slowly, then more quickly.

In a purely recreational dance of the *Mataco*, the dancers form a line and slowly start to move forward; at the same time the man in the center of the line whirls around, pivoting the line so that those at the ends of the line run faster than the others.

In the *Lengua* kyaiya dance, a man in the circle of dancers keeps pointing to the four cardinal points. Held in the spring, it is a rejoicing in anticipation of the new food supplies; in the summer, it is a thanksgiving for the algarroba bean harvest; in the autumn, it celebrates the harvest of the main garden crops (Grubb, 1913, p. 178).

The *Caduvco* have a dance, based on a pattern of four steps, in which young men and girls, each holding his neighbor's waist or hand, form separate lines and move forward and backward to the music of flutes and drums. Now and then the men break their line to revolve around the girls, or pairs execute a series of turns. The pattern of steps is always the same: two slow steps and a rapid, jerky one forward, and then a return to the initial position. The body is bent forward slightly, but is thrown backward on the third beat. The dance is apparently recreational in nature, but a ceremonial origin may be inferred from the presence of masked figures, some probably impersonating ghosts and others playing the part of clowns.

At formal receptions, *Mbayá-Caduvéo* women honor their guests with songs and dances consisting of a succession of short steps while the body sways and the hands move.

Some *Tereno* dances are really parades before the chiefs, whom men and women salute while marching by. The homage is repeated several times with variations.

Certain women's dances of the *Guarañoca*, a *Zamuco* subtribe, dramatize such economic activities as sowing or collecting pavi fruits or such commonplace incidents as the chase of an ant which has bitten a person (D'Orbigny, 1835–47, 2: 637–638).

Among dance accessories were the tufts of red feathers which *Pilagá* and *Mbayá* dancers brandished.

Tobacco.—Chaco Indians smoke far more than any other South American natives. They are ready to trade their most prized possessions for strong, black tobacco, lack of which is deemed a painful privation. Even with little agriculture, Indians such as the *Pilagá* grow tobacco. The *Mbayá* horsemen, who were passionate smokers, were supplied tobacco by their *Guaná* serfs, who raised several varieties of it.

Tobacco leaves are inserted in a split stick, dried over a fire, and crushed into a coarse powder. The ancient *Mbayá*, like modern *Lengua*,[50] pounded the leaves in a mortar and kneaded the mass into small cakes that were exposed to the sun or to fire. When the tobacco had turned black, it was minced, crushed, and left for a time in the sun (Sánchez Labrador, 1910–17, 1: 184). These Indians stored their tobacco in artistically engraved gourds; modern natives carry it in embroidered skin pouches.

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[50] Grubb (1913, p. 73) adds the following details about the *Lengua:* "The pulp is then made into small round cakes, moistened with saliva and pressed between the hands. They are not allowed to bake in the sun until quite hard. A hole is made in the centre of each cake, and several are strung together for convenience."

Pipes.—The *Chorotí* used crude pipes made of a bamboo section, but these are exceedingly rare. As a rule, Chaco pipes are carved of wood—among the *Mbayá* and other northern groups, of palisander wood, which exhales a pleasant odor when hot. Clay pipes, both tubular and curved, occur in various tribes (*Mataco*, *Pilagá*, *Lengua*), but they are quite uncommon today (fig. 42, *c*). They may have been more popular before steel tools simplified the carver's task. In fact, the *Lengua* word for "pipe" means also "clay."

Several types of pipes may be used by a single group. Thus, the Pilcomayo River Indians have tubular (fig. 42, *e*), elbow, monitor, and composite pipes (i. e., with a stem fitted into a bowl). The composite pipe seems to predominate among the *Mbayá-Caduvéo* and other northern tribes.

Tubular pipes are drilled at one end for a bowl from which a perforation runs to the mouth end and are often decorated with a flange at both ends. Some specimens are constricted in the middle; those of the *Mataco*, *Toba*, and *Ashluslay* flare characteristically into a flat, wide mouthpiece (fig. 42, *g*.)

Some pipes have the bowl set somewhat back from the distal end and resemble the monitor pipes of North America.

Elbow (fig. 42, *d*) and composite pipes may be imitations of the European form; the bowl of the composite type is often the traditional tubular pipe fitted with a stem.

Pipes are often decorated with raised flanges or with incised or fire-engraved designs, but their main esthetic value is their elegant shape and their polish (fig. 42, *a*, *b*, *f–h*).

The bowls of the *Mbayá-Caduveo* pipes carved as human figures and the *Ashluslay* pipes shaped like animals may be regarded as the best wood carvings in the Chaco. The ancient *Mocoví* had also zoomorphic pipes (Kobler, 1870, p. 221). The long tubular pipes of *Payaguá* shamans were covered with engraved biblical scenes, mainly of Paradise and the story of Adam and Eve. (See Steinen, 1901 a; Koch-Grünberg, 1903 b; Outes, 1915.)

The Pilcomayo River Indians plug their pipes with a fiber or moss filter. A few specimens have the mouthpiece covered with a small perforated calabash disk.

The Indians inhale and blow the smoke out through their noses. After a few puffs, they pass the pipe around to their companions.

Chewing.—Among the southern *Guaicurú* (*Abipón*, *Mocoví*), both sexes were fond of chewing tobacco. Among the northern tribes (*Mbayá*, *Payaguá*), only the women chewed; they are said to have kept their quid constantly between their lips and gums. Chopped tobacco leaves for chewing were impregnated with saliva and mixed with bone ashes (*Mbayá*, *Mocoví*) or with salt (*Abipón*, *Mocoví*).

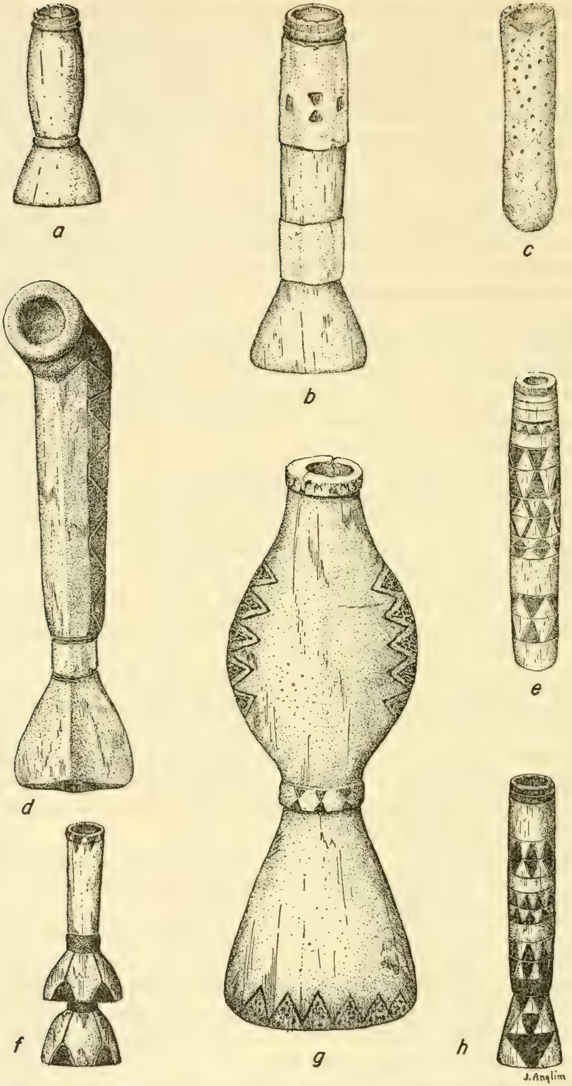

FIGURE 42.—Chaco tobacco pipes. *a, b, d, f, g, Pilagá* wooden pipes; *c, Mataco* clay pipe; *e, h, Mataco* fire-engraved wooden pipes. (All ⅔ natural size.) (Métraux collection, American Museum of Natural History.)

The *Mocoví* carried their tobacco in a cow horn attached to their cloak.

As a substitute for tobacco, the *Toba* and *Chunupí* chewed or smoked a root called koro-pa.

Coca chewing.—Many Chaco Indians who work in the sugar factories have acquired the habit of chewing coca from the *Quechua*, a habit which has spread in recent years almost to the Paraguay River.

Drinking bouts.—Any social event is a pretext for a drinking bout. Among the *Abipón*, the occasions for a spree were a victory, an impending war, funeral rites, the birth of a chief's son, the shaving of widowers or widows, the changing of a name, the proclamation of a new captain, the arrival of a distinguished guest, a wedding, and, most commonly, a council of war. These are still the occasions on which other Chaco tribes get drunk. The biggest sprees among the Pilcomayo River Indians, however, take place from November to February when algarroba is ripe.

The *Mbayá* rationalized their orgies by saying that when drunk they dreamed of beautiful things. The *Abipón* contended that "they were never more wise in council or braver in fight than when they were intoxicated." The *Mascoi* ascribed to fermented drinks the power to give men supernatural clear-sightedness. The *Chamacoco* show great respect for a drunken man, believing him to be possessed by a spirit.

The native beer is brewed of algarroba pods, or, when these are not available, of tusca or chañar fruits. The *Mataco* and *Chorotí* are said to prepare a beverage of melon or watermelon.

All Chaco Indians are extremely fond of mead, but, though honey is perennially available, it is rarely collected in sufficient quantity to satisfy a large group of guests.

The algarroba pods are pounded in a mortar and mixed with hot water in a hollowed bottle tree or an improvised container made of a squared cow or goat skin with the edges raised off the ground (*Abipón*, *Mocoví*, *Chorotí*). Sometimes, to accelerate fermentation, a small quantity of pounded algarroba which has been chewed by old women is added. Tusca beer is prepared of the crushed fruits sprinkled with water. Chañar fruits are boiled, and the juice is left to ferment. Mead is prepared of honey and water mixed in a large, narrow-necked calabash, and heated in the sun or by a fire.

The *Mbayá* drank the slightly fermented sap of the mbocayá palm (*Acrocomia* sp.). Sometimes they allowed the mush made of the fruits of this palm to ferment, but this beverage was hardly alcoholic.

Men sing, shake deer-hoof or gourd rattles, and drum all night around the beer trough to hasten the fermentation magically and make the beverage really strong. These rites are deemed as important to the preparation of the beer as the mechanical activities.

No young women are allowed to participate in a drinking bout, but old women attend to look after the men and sometimes to dance or chant.

In all tribes certain rules of etiquette are scrupulously observed. The participants paint and decorate themselves profusely. The most distinguished guests are always served first. The *Mbayá* sat in a circle and were served by a hostess. Women rushed toward those who vomited to hand them a vessel. A drummer, generally a young man in his best attire, chanted the virtues of the guests, while other men blew clarinets (see p. 343), or sounded whistles to encourage the guests to drink. When the drinks were exhausted at one house, musicians urged the crowd to move to the house of another nobleman where beer or mead had also been prepared. Probably to avoid any quarrel, it was regarded as unwise to refuse anything asked by a drunken man.

The *Ashluslay* wave their hands at those who drink, and anyone leaving the party has to make a friendly gesture with the hand. A well-bred *Pilagá* only drinks half of the calabash handed to him and passes the rest to his neighbor.

The carousal lasts as long as the beer—sometimes for several days. The intoxicated *Ashluslay* or *Pilagá* sing, whistle, and deliver long speeches boasting of their courage and achievements. Very frequently those who nurture a secret grudge take advantage of the general excitement to give vent to their repressed resentment. Insults and threats are exchanged and fights start which, however, rarely end in casualties, thanks to the vigilance of the women, who see to it that no weapons fall into the men's hands and promptly intervene to prevent a verbal quarrel from degenerating into a dangerous brawl. When a man becomes obnoxious, his relatives take him to their hut, where he sleeps it off. The *Mbayá* and other tribes cure their hangovers by chewing the bark of certain trees. Sorcerers are likely to take advantage of a drinking party to "poison" their enemies.

RELIGION

Supernatural beings.—Missionaries have always failed to find the concept of a Supreme Being in the religion of the Chaco Indians. Peritnalik, Asin, and the bird Carancho (*Polyborus plancus*) are mythic culture heroes, but certainly not deities. The Beetle (escarabajo), who, according to the *Lengua*, made the Universe and peopled it with spirits and men, remains aloof from his creation and is never invoked. The only mythological character who approximates a supreme god is Eschetewuarha of the *Chamacoco*. She is the mother of countless spirits (guarã); she dominates everything, and makes sure that the Sun does not burn the earth and that mankind obtains water. She expects men to sing every night for her and punishes them if they are remiss in this duty.

Some Chaco tribes personify celestial bodies or natural phenomena, and consider them to be helpful or dangerous, but there is no evidence that regular cults are rendered to them. The *Abipón* and *Mocoví* referred to the Pleiades as if this star cluster were a living being, and called it "Our Grandfather." They attributed the stars' annual disappearance to illness, and rejoiced when they returned. They even congratulated them as if they were actually men, but the feast which followed their rise above the horizon cannot be construed as a formal astral cult. Prado (1839, p. 35) says expressly that the *Mbayá* celebrated the appearance of the Pleiades not because they held them to be a deity, but only because they announced the season of the mbocayá nuts. The *Payaguá*[51] and *Tereno* regarded the return of the Pleiades as a signal for the performance of magic rites and for various festivities.

When the new moon shone in the sky, the *Mbayá*, the *Toba*, and *Mocoví* showed signs of great contentment, which has been erroneously interpreted as expressions of a lunar cult. The *Mocoví*, however, asked the new Moon for physical strength, and young men pulled their noses to improve their shape. The *Mbayá* also saluted the Morning Star, saying, "Here comes our master," an expression void of any deep significance. The *Mataco* shamans speak of the Sun as a wise man whom they like to consult in spite of the many dangers of doing so. The *Tumerehã* believe that the Sun is a powerful demon who sends diseases and who selects those whom he wishes to become shamans.

The *Mataco* attribute menstruation to the young girl's mysterious intercourse with the Moon. *Lengua* girls asked Lightning for a husband. In *Pilagá* myths, Rainbow kidnaps children and kills people by moving his tongue all around his head. Lightning is a little hairy woman or man who needs smoke to return to the sky (*Toba*, *Pilagá*). The *Abipón* and the *Lengua* looked at the whirlwinds as the manifestations of a spirit. The former threw ashes, the latter sticks, to drive them away. The *Mataco* also personify the Big Fire that burns at the end of the world.

Epidemics are generally thought to be caused by demons. The smallpox demon lives in the mountains and has a face covered with small pits (*Mataco*). The *Lengua* greatly fear the White demon of the swamps or lagoons, who supposedly sails over the waters. The forests and rivers are haunted by special demons (the Water-dwellers of the *Pilagá*); their meetings with human beings are related in many tales. The forest demons (Guarã) of the *Tumerehã* have some features of dogs, which they derive from their father, a mythical dog who mated with a woman.

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[51] "La superstición con las Pleyadas no es más que ser época de una festividad bacanal en los primeros dias de su aparición vespertina y nos consta sucede lo propio entre los Bayas y otros indios" (Aguirre, 1911, p. 357).

Some animals have a Master, a spirit who prevents their wholesale destruction by hunters. For example, the Master-of-the-fish is angered, according to the *Pilagá*, when fish are caught and then left to rot.

In addition to these demons, the Indian's world is crowded with unpersonified spirits which are either goblins or ghosts. It has been said that any object or animal which inspires fear or awe in a Chaco Indian is the receptacle of an evil spirit. Such a view is based on arbitrary interpretation rather than on actual statements by the natives. In *Toba*, payak means a spirit, but the word is applied as an adjective to all kinds of phenomena and animals which appear strange, mysterious, supernatural or uncanny, and does not necessarily imply that the payak object or being is actually possessed by a spirit. Thus, whirlwinds, black beetles, and the objects that a shaman extracts from the body of a patient are all payak.

The *Mataco* distinguish between the husek, which is the soul of a person, and the ãhat, or ghost. The souls of the dead are greatly feared, but no more than spirits, such as the Inhabitants of the Earth and the welan who reside in trees, especially the large bottle trees. Among the *Mataco-Nocten* of Bolivia, aitax seems to have had the same meaning as payak in *Toba*, if Karsten's definition (1932, p. 119) is correct.

Chaco Indians do not actually live in the constant fear of spirits that some authors have ascribed to them. They admit that spirits and ghosts are especially obnoxious at night, and are ready to interpret any queer noise as evidence of the presence of a spirit; but during the day they show little concern, unless something strongly suggests supernatural interference. Above all, spirits bring illness. Any community in which a death has occurred is exposed to attack by the ghost of the deceased. A hunter must take precautions to prevent revenge by the slain animal's spirit. For this reason, a man who has killed a bird, plucks its neck feathers and scatters them on the road, hoping that while the bird's spirit is collecting the feathers, he can reach home safely.

The *Lengua* believe in a spirit, called Hakumyi, who now and then helps men in their gardening. They also speak of another spirit that is harmless but has thievish proclivities.

A spirit is deemed good only when it is at the service of a shaman or of a man who has had a vision. Only a person who has established personal contact with a spirit may rely upon its help. A sick *Toba* may say to his familiar or guardian spirit, "Let no more evil befall

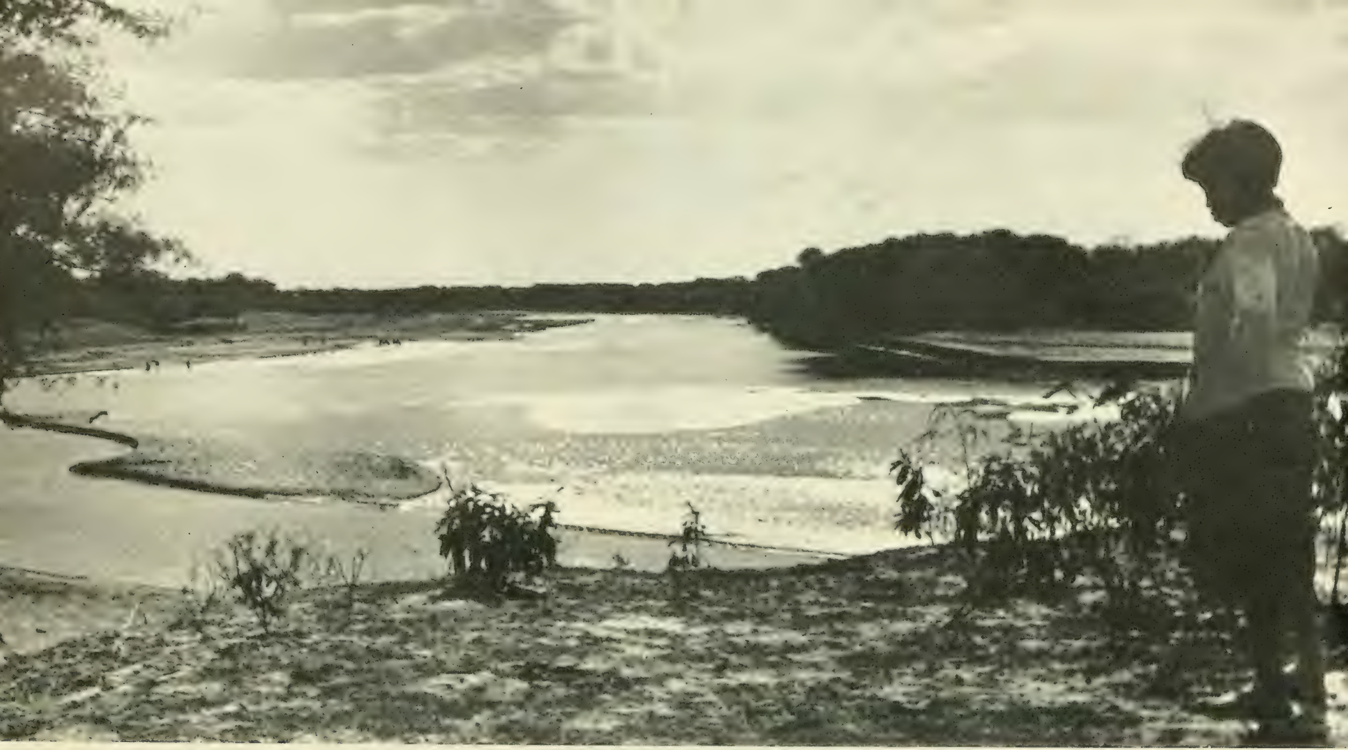


PLATE 45.—**Chaco landscape.** Bermejo River, near Algarrobal. Salta, Argentina. (Courtesy Mann.)

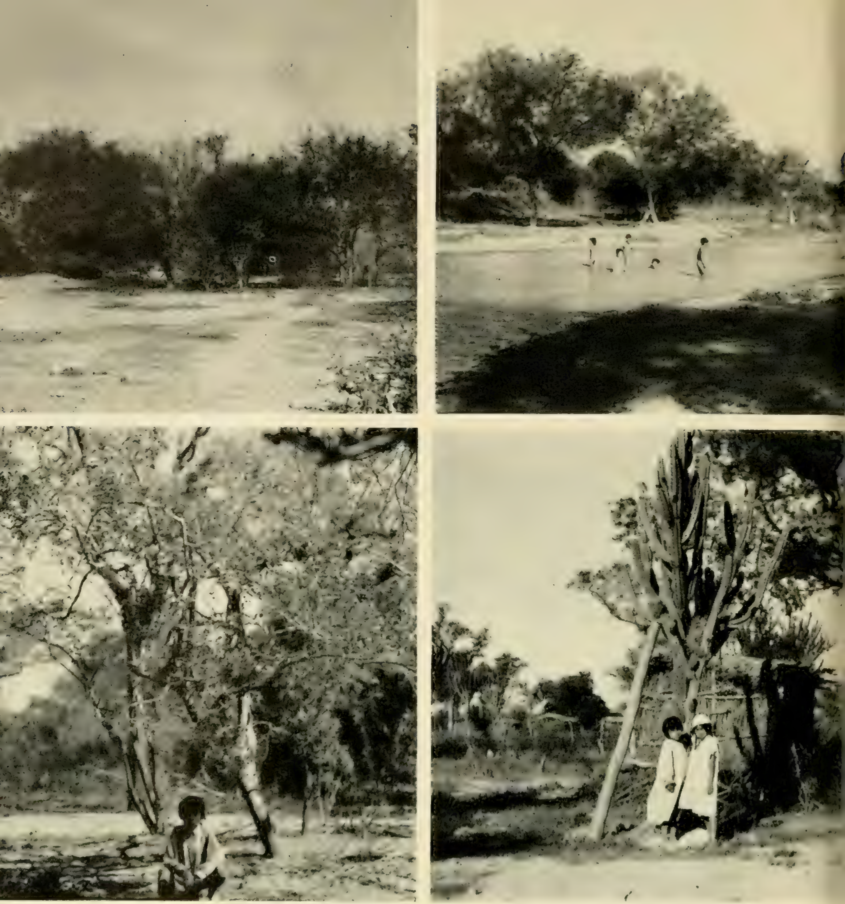


Plate 46.—**Chaco landscapes.** *Top (left):* Xerophytic forest (monte ralo) near San Patricio, Salta, Argentina. *Top (right): Mataco* children bathing. *Bottom (left):* Xerophytic forest. *Bottom (right): Mataco* granary, San Patricio. (Courtesy Alfred Métraux.)

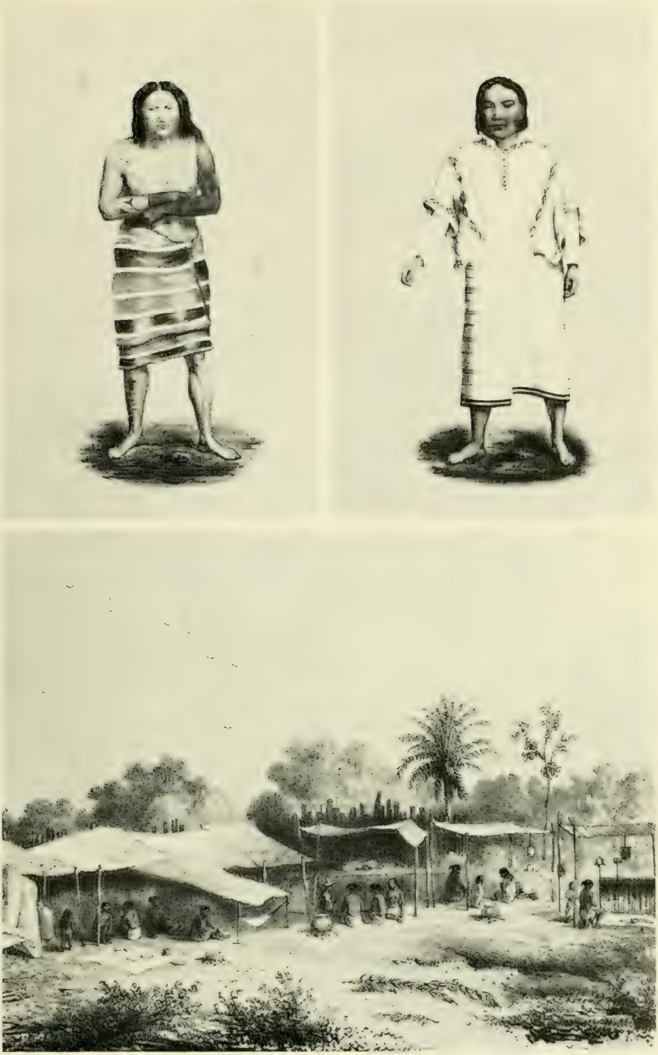


PLATE 47.—**Chaco Indians, 19th century.** *Top (left): Mbayá* man. *Top (right): Tereno* man. *Bottom: Mbayá* camp, Albuquerque, Matto Grosso, Brazil. (After Castelnau, 1852, pls. 37, 38, 53.)

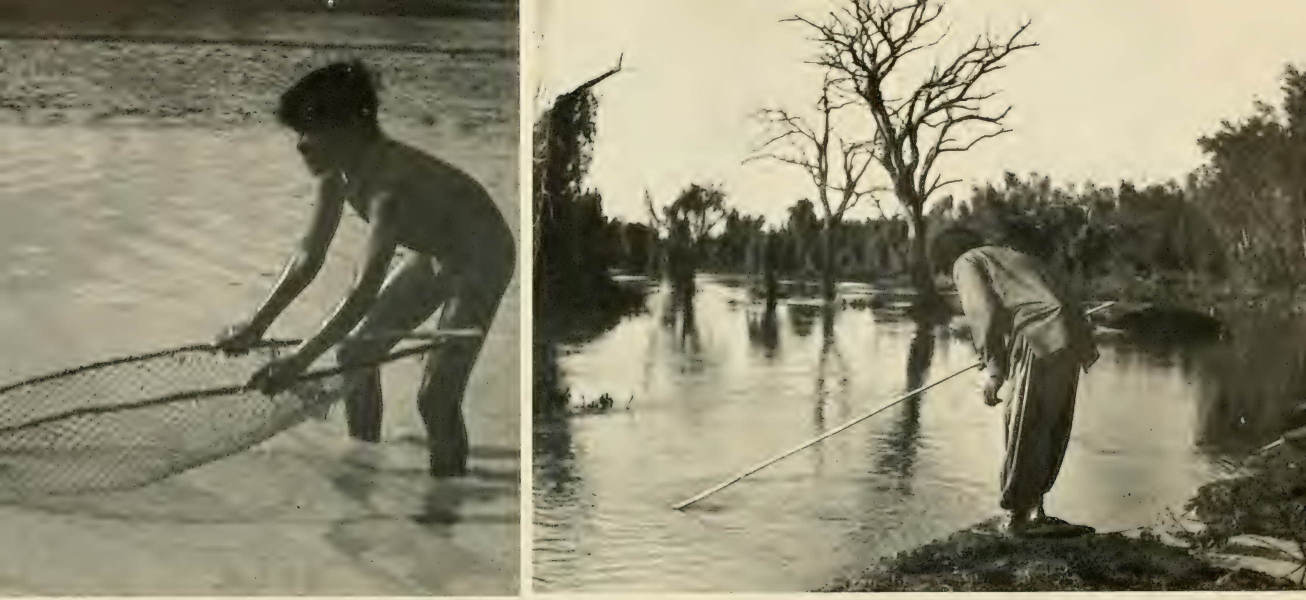


PLATE 48.—**Chaco fishing techniques.** *Left: Pilagá* man with dip net. *Right: Toba* man with spear. Río Pilcomayo, Formosa, Argentina. (Courtesy Mann.

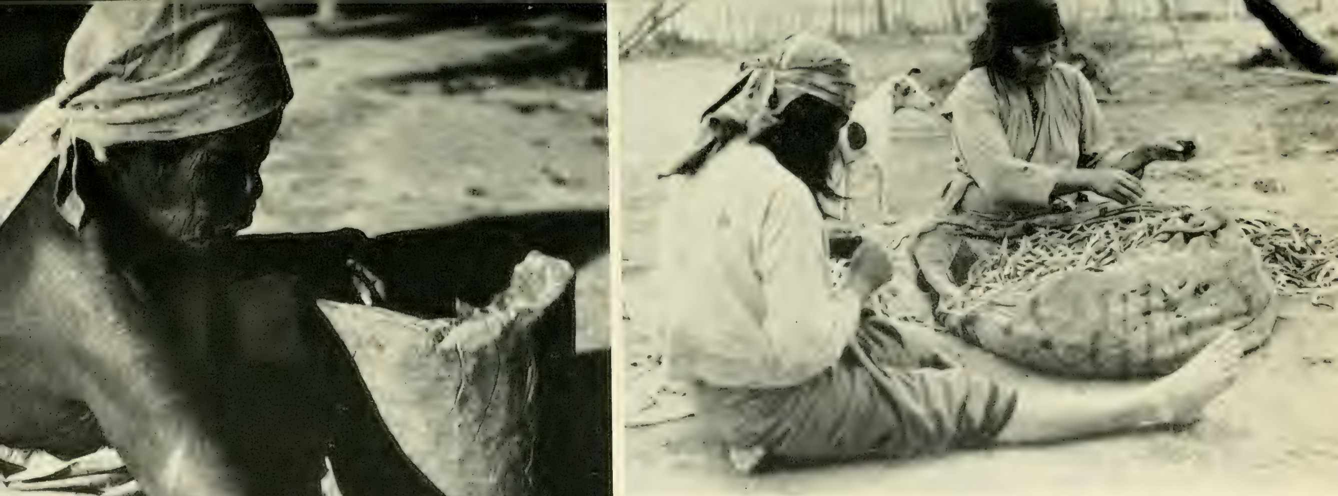


PLATE 49.—**Chaco women preparing algarroba.** *Left: Pilagá* crushing the pods in wooden mortar. (Courtesy Mann.) *Right: Pilagá* sorting the pods (Courtesy Alfred Métraux.

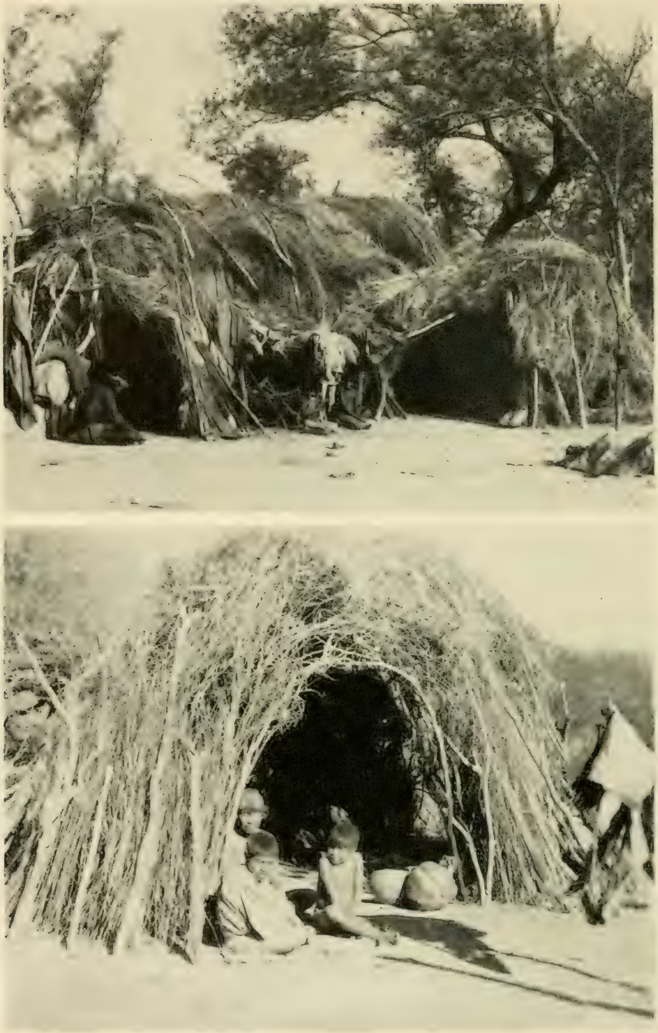


PLATE 50. **Chaco houses.** *Ashluslay* huts. (Courtesy Max Schmidt.)

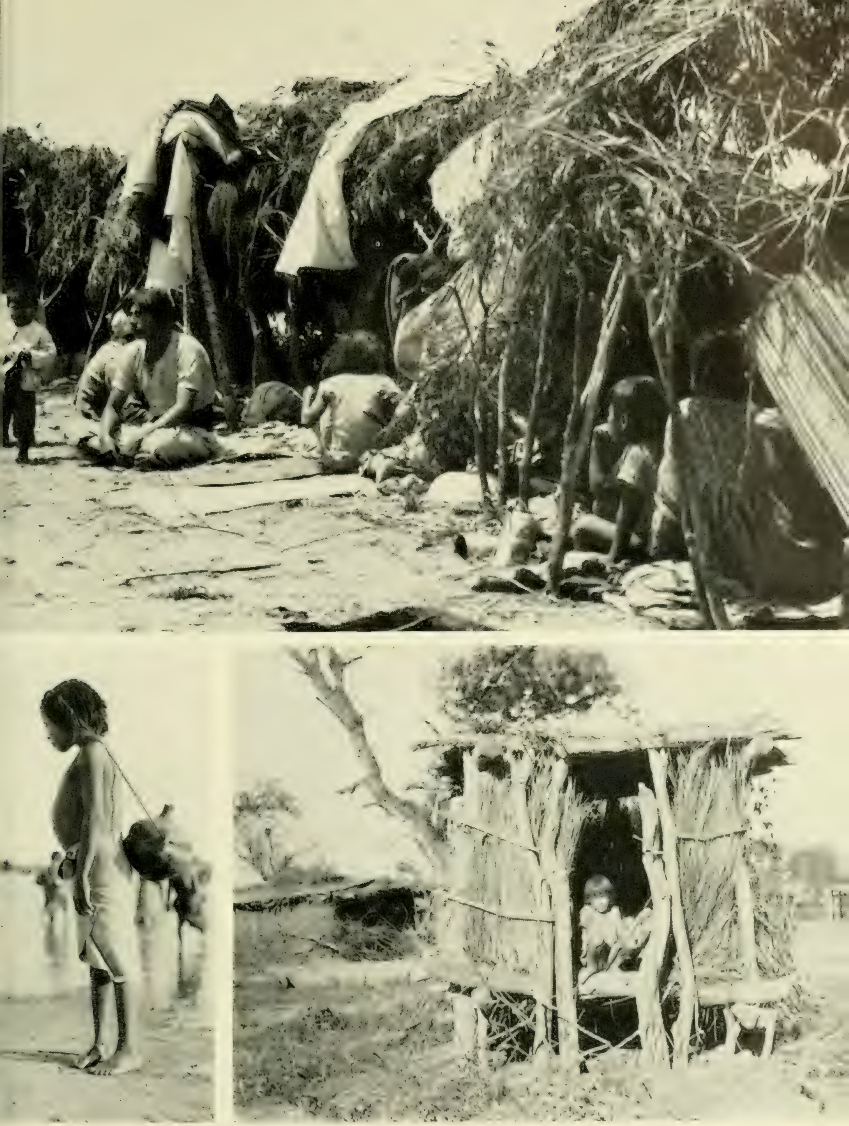


PLATE 51.—**Chaco houses, granaries, and water carrying.** *Top: Pilagá* village. (Courtesy Mann.) *Bottom (left): Pilagá* girl carrying water jar by tumpline. *Bottom (right): Mataco* or *Pilagá* granary. (Courtesy Alfred Métraux.)

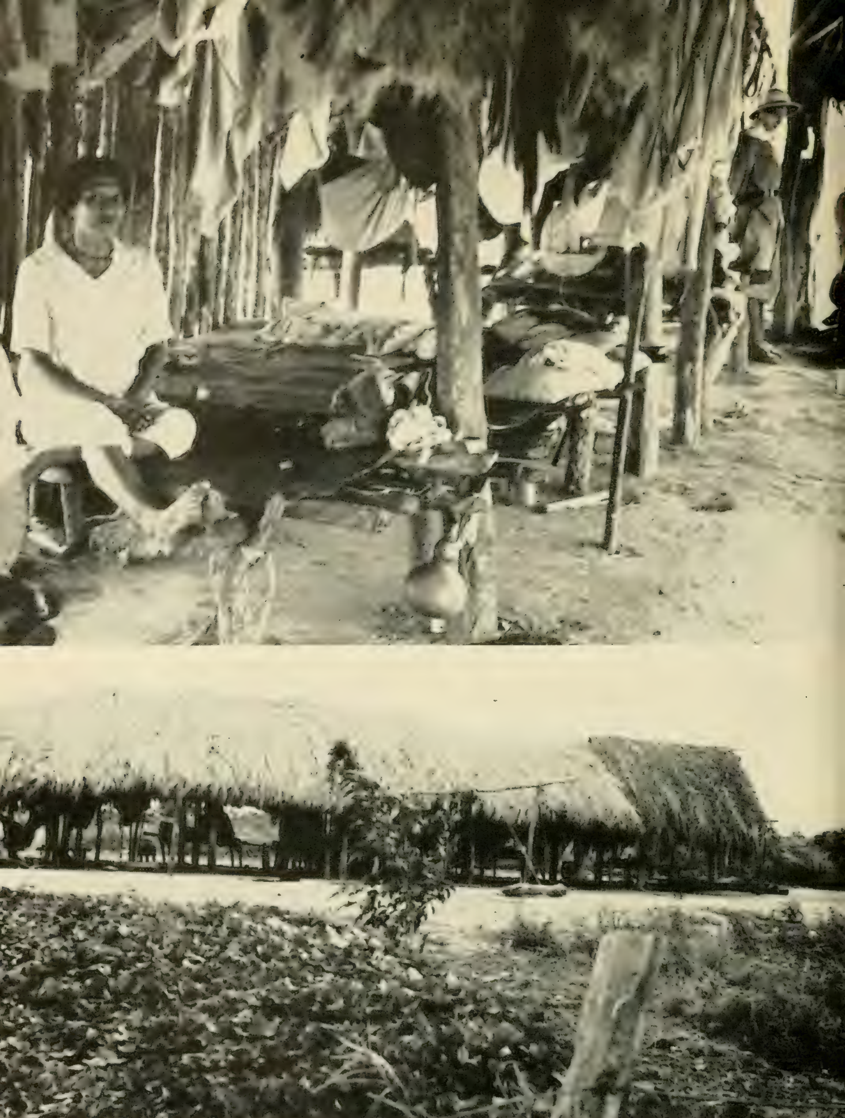


PLATE 52.—**Chaco houses.** *Top:* Interior of *Mbayá* hut with sleeping platforms. Village of Nalike. *Bottom:* Palm-thatched *Mbayá* communal houses, Nalike. (Courtesy Claude Lévi-Strauss.)

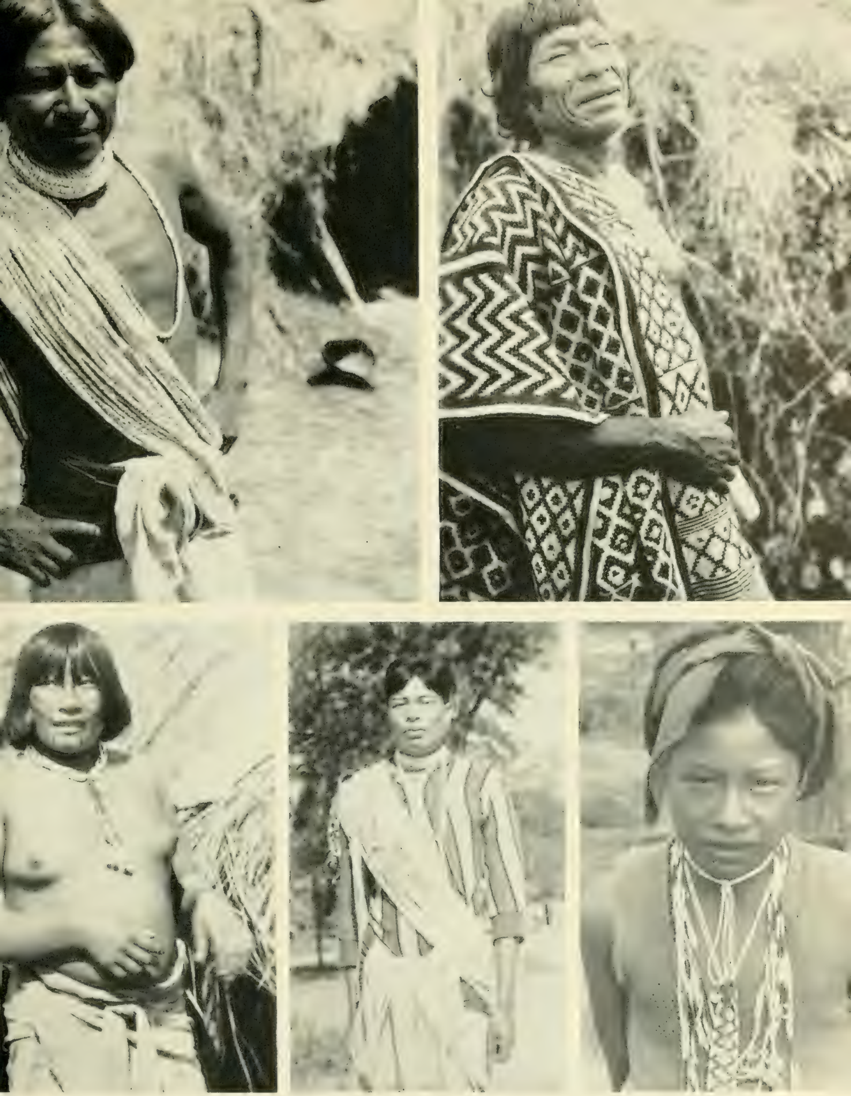


PLATE 53.—**Chaco costumes.** *Top (left): Ashluslay* man with shell necklaces. *Top (right): Ashluslay* man wearing a poncho. *Bottom (left): Ashluslay* woman with wrap-around skirt. *Bottom (center): Pilagá* man with shell necklaces. (Courtesy Alfred Métraux.) *Bottom (right): Pilagá* child wearing necklace of glass beads and netted shirt. (Courtesy Alfred Métraux.)

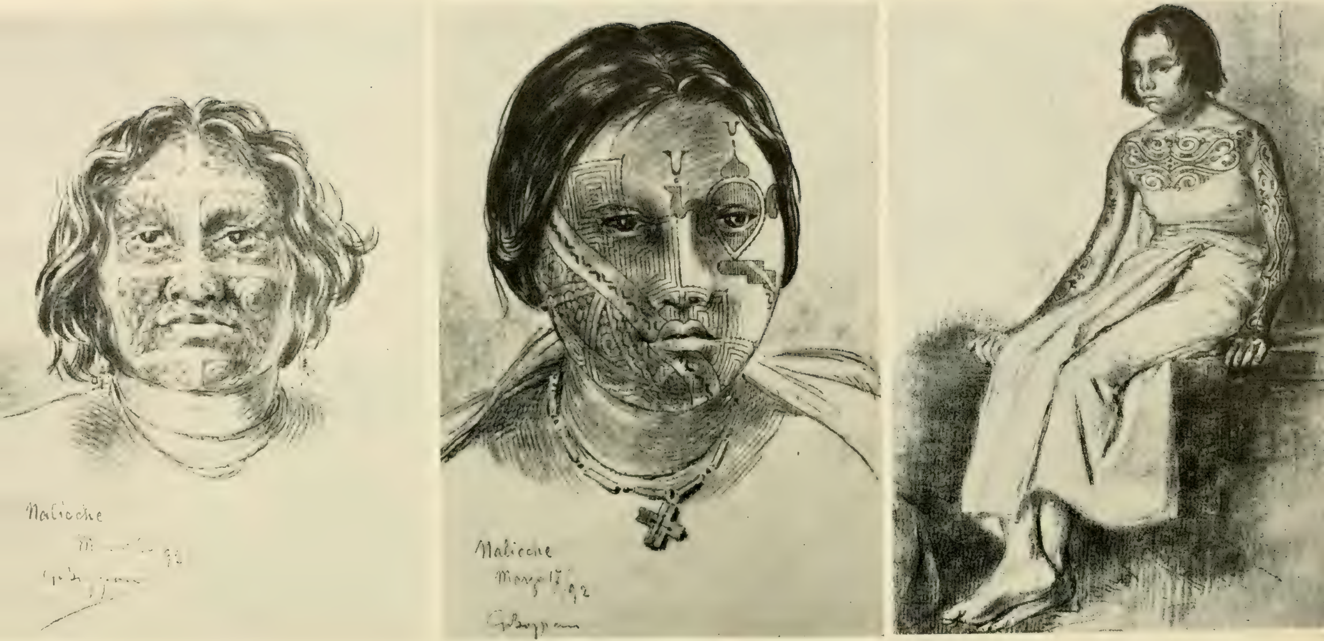

Nalicche
Nalicche
Marzo 17. 92
G. Boggiani

PLATE 54.—**Caduveo facial and body painting.** (After Boggiani, 1895 figs. 43 74 90.

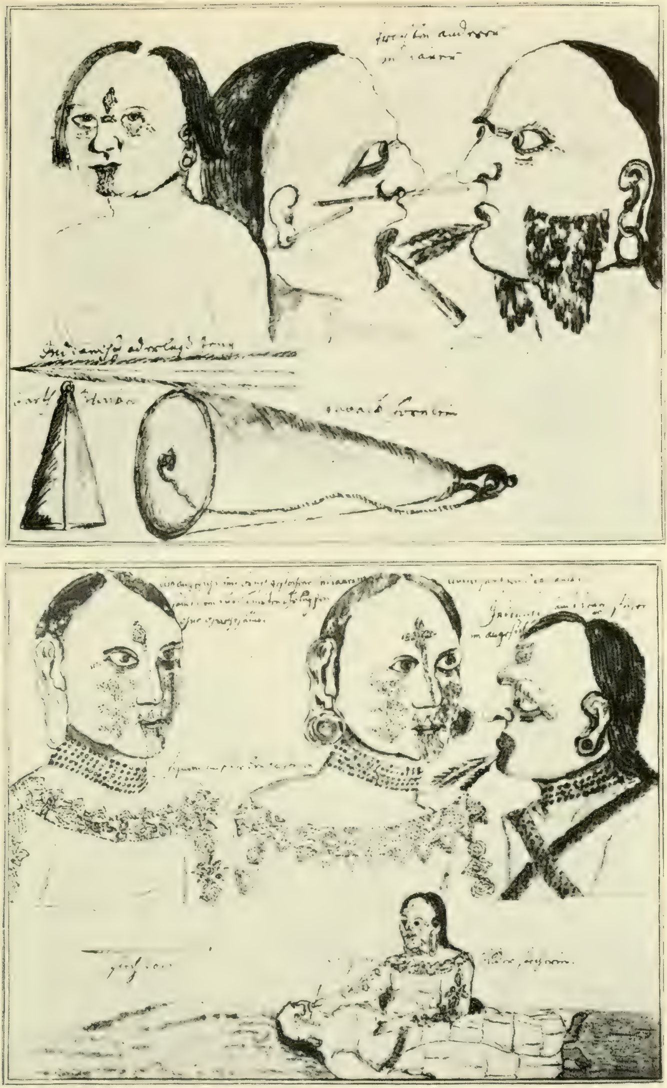


PLATE 55.—**Chaco face and body ornaments.** *Top: Mocoví* chin ornament (tobacco horn below). *Bottom: Mocoví* tattooed designs and woman tattooing a man. (After Baucke, 1935, figs. 10, 11.)

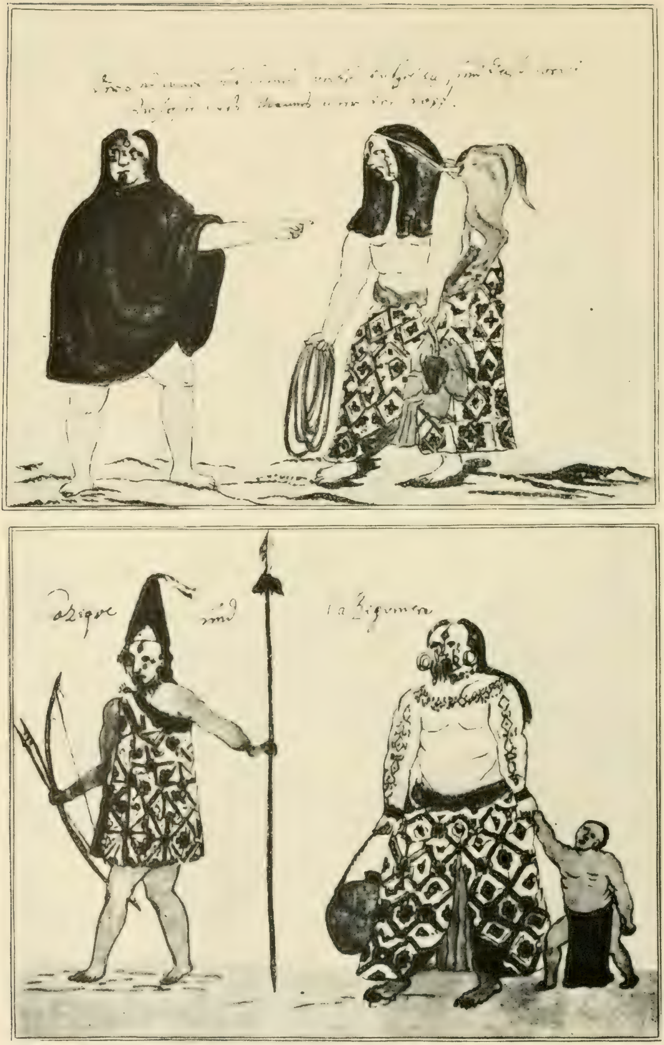

Azique
und
la Ziguema

PLATE 56.—**Chaco costumes.** *Top: Mocoví* hunter with *Guaicurú*-type tonsure. *Bottom: Guaicurú* warriors with tattoo and wearing painted skin robes. Note tattooing. (After Baucke, 1935, figs. 13, 14.)

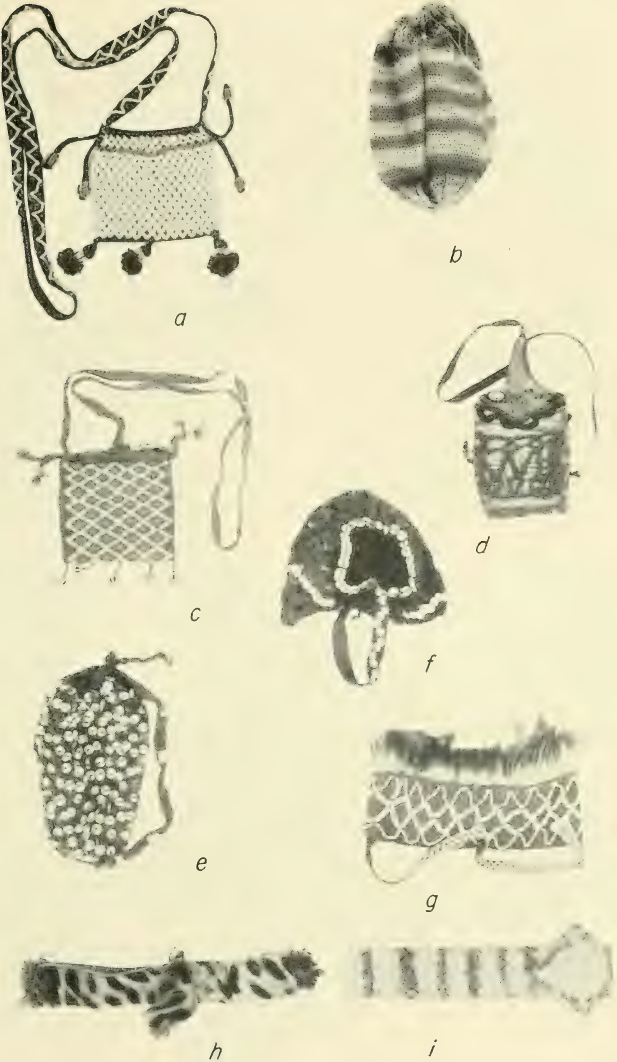


PLATE 57.—**Chaco head ornaments and bags.** *a, c, Pilagá* beaded bag; *b, Pilagá* netted bag; *d, Chulupí* or *Ashluslay* iguana-skin pouch; *e, f, Pilagá* hair nets decorated with shell disks; *g, Pilagá* frontlet with flamingo feathers; *h, Mataco* jaguar-skin frontlet; *i, Pilagá* child's frontlet of plaited palm leaves. (Courtesy American Museum of Natural History.)

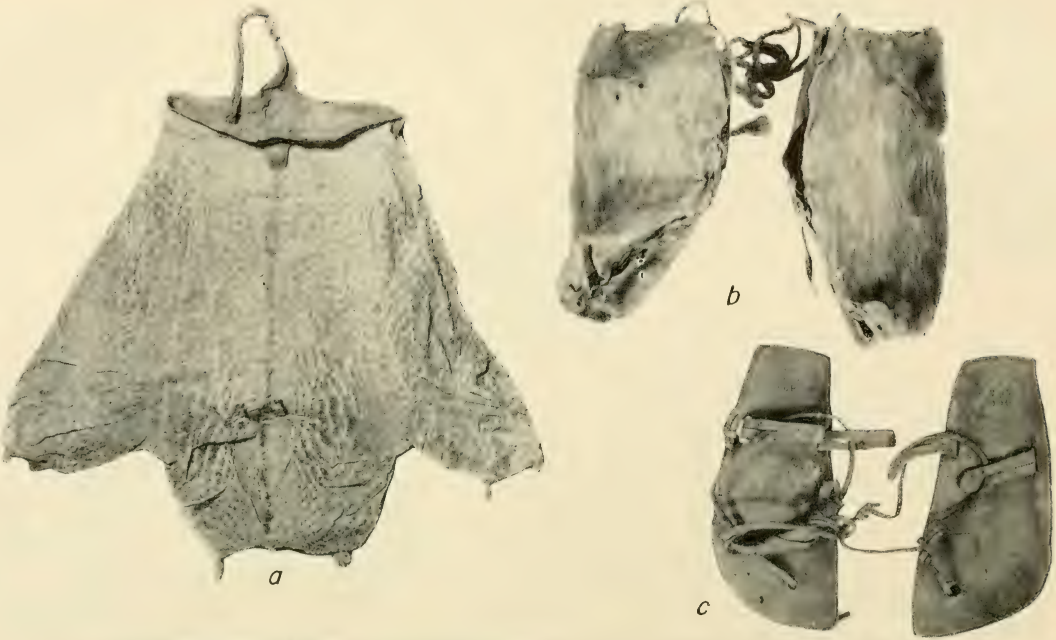


PLATE 58.—**Pilagá footgear and skin bag.** *a*, Rhea-skin bag; *b*, moccasins; *c*, sandals. (Courtesy American Museum of Natural History.)

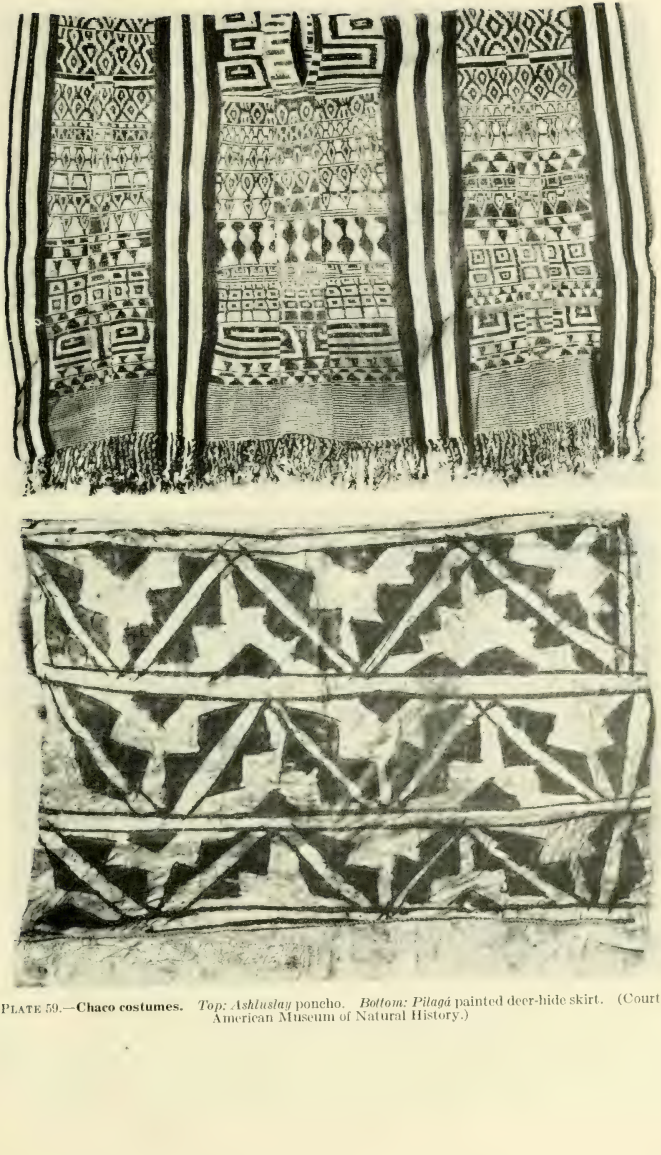


PLATE 59.—**Chaco costumes.** *Top: Ashluslay* poncho. *Bottom: Pilagá* painted deer-hide skirt. (Courtesy American Museum of Natural History.)

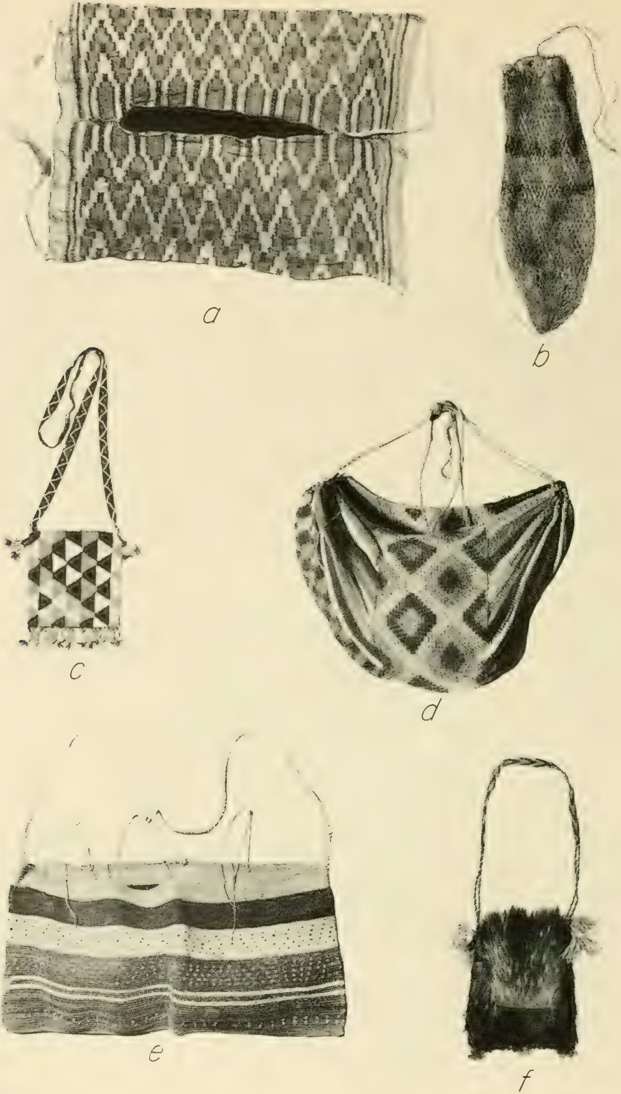
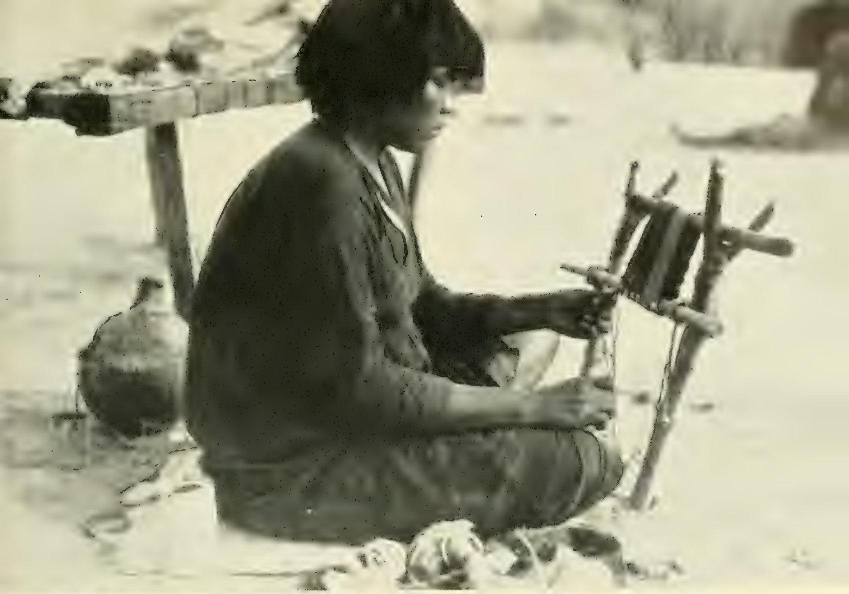


PLATE 60.—**Chaco bags.** *a*, *Mataco* looped carrying bag; *b*, *Pilagá* netted bag for removing fuzz from cactus fruit; *c*, *Pilagá* finger-woven woolen pouch; *d*, *Pilagá* looped bag; *e*, *Pilagá* macramélike bag decorated with glass beads; *f*, *Pilagá* bird-skin bag. (Courtesy American Museum of Natural History.)



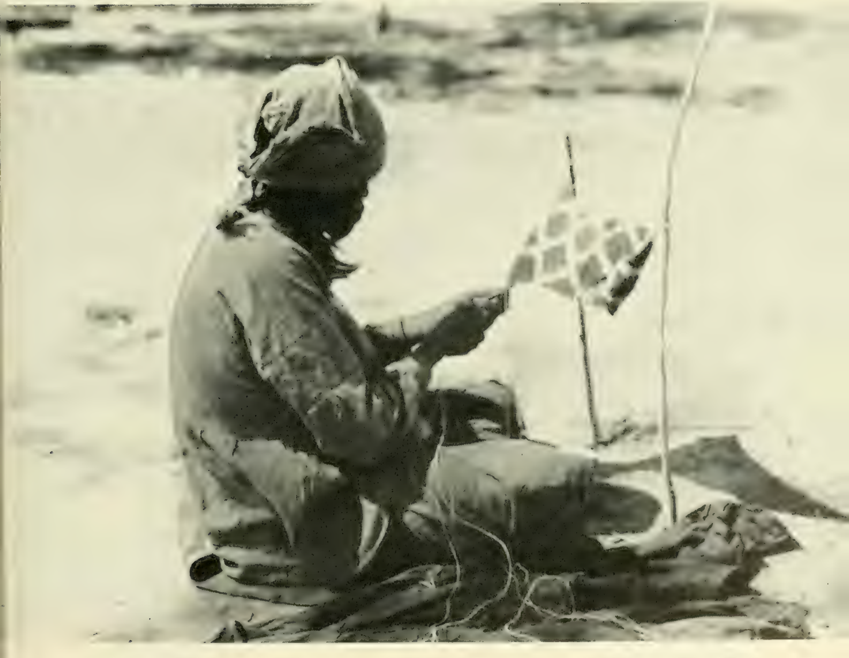


PLATE 61.—**Chaco textile manufacture.** *Top: Toba* small loom for finger weaving. *Bottom: Mataco* knitting a bag. (Courtesy Alfred Métraux.)

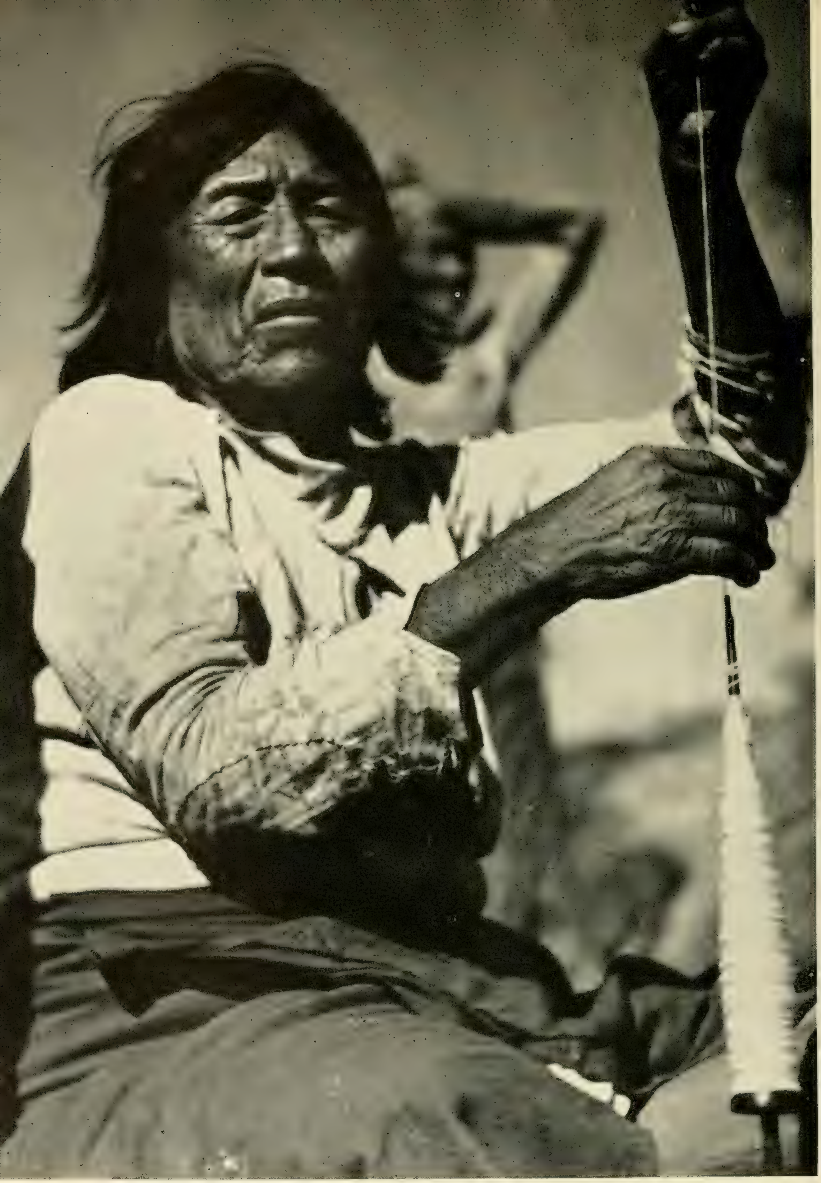


Plate 62.—**Toba spinning wool.** (Courtesy Mann.)

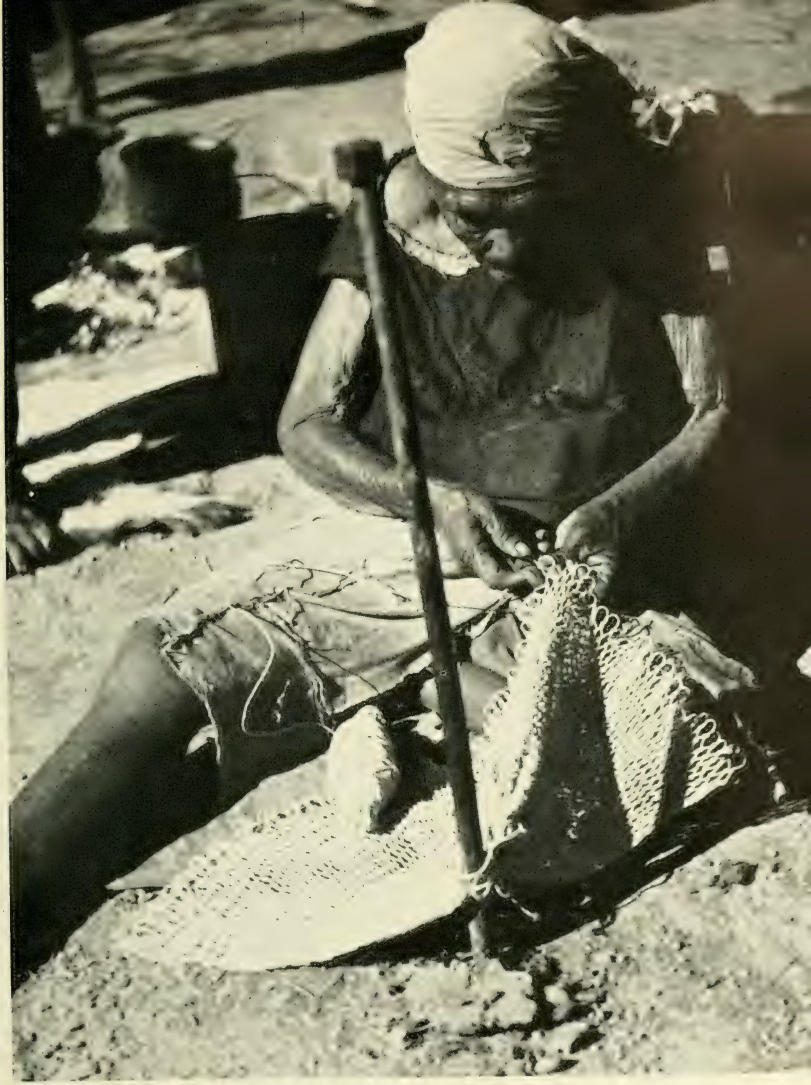


PLATE 63.—**Toba woman making carrying net.** (Courtesy Mann.)

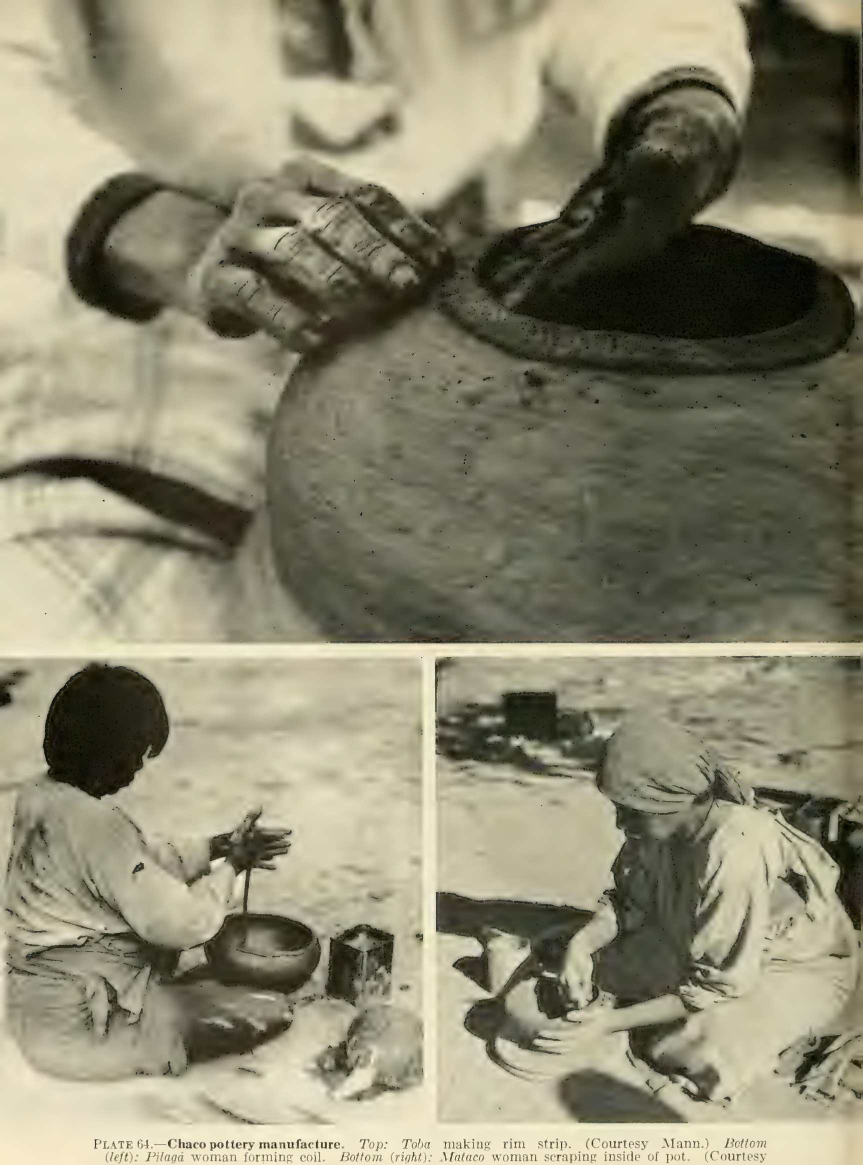


Plate 64.—**Chaco pottery manufacture.** *Top: Toba* making rim strip. (Courtesy Mann.) *Bottom (left): Pilagá* woman forming coil. *Bottom (right): Mataco* woman scraping inside of pot. (Courtesy Alfred Métraux.)

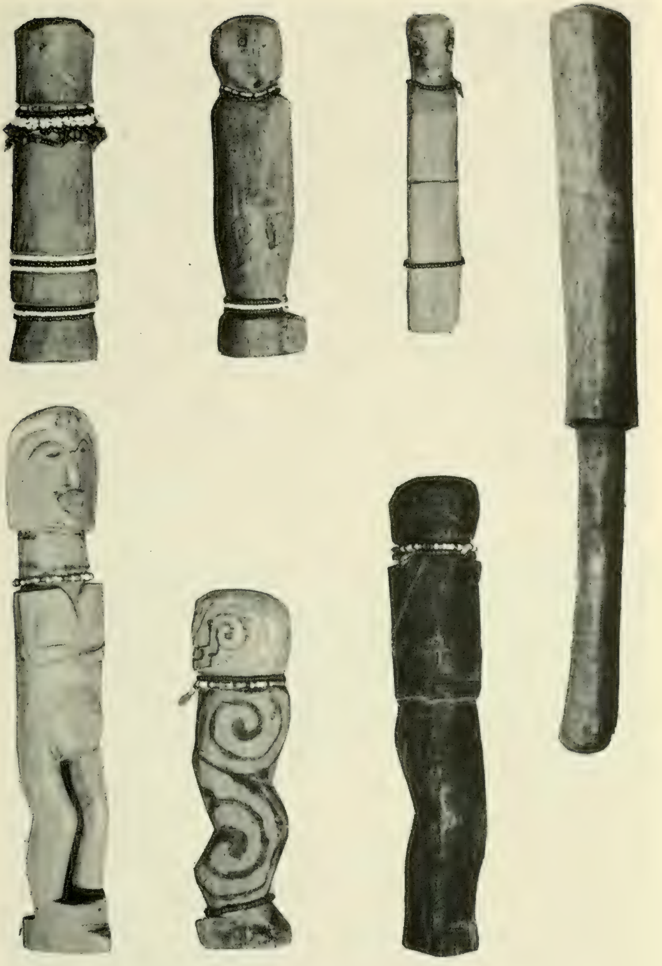


PLATE 65.—**Chaco wood carving.** *Chamacoco* wooden figurines and throwing club (at right). (Courtesy Museo Etnográfico, Buenos Aires.)

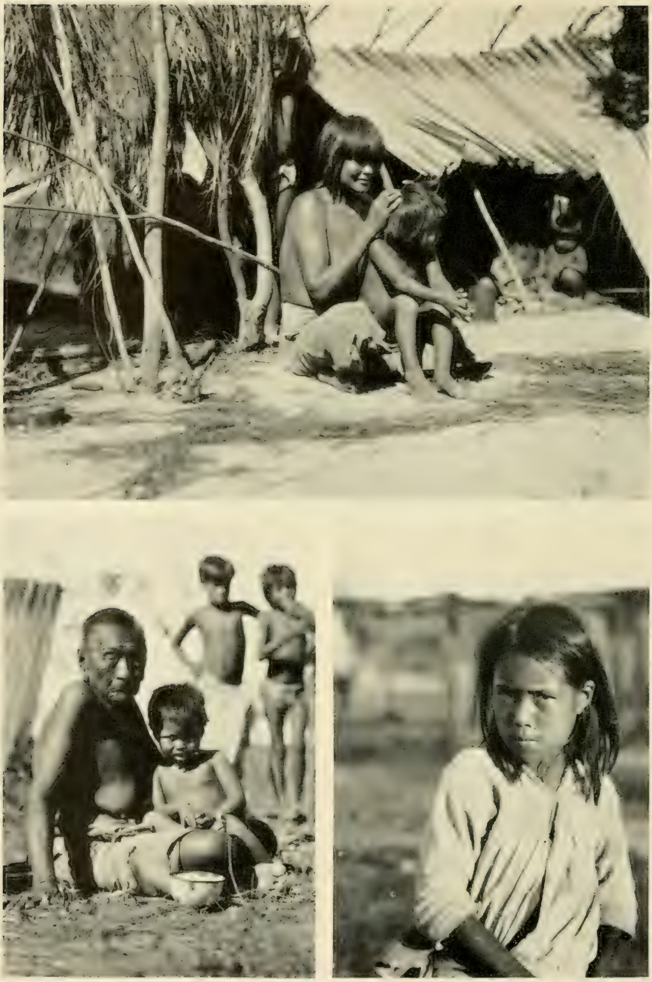


PLATE 66.—**Chaco children.** *Top: Pilagá* delousing child. *Bottom* (*left*): *Pilagá* grandmother and child. *Bottom* (*right*): *Mataco* girl. (Courtesy Alfred Métraux.)

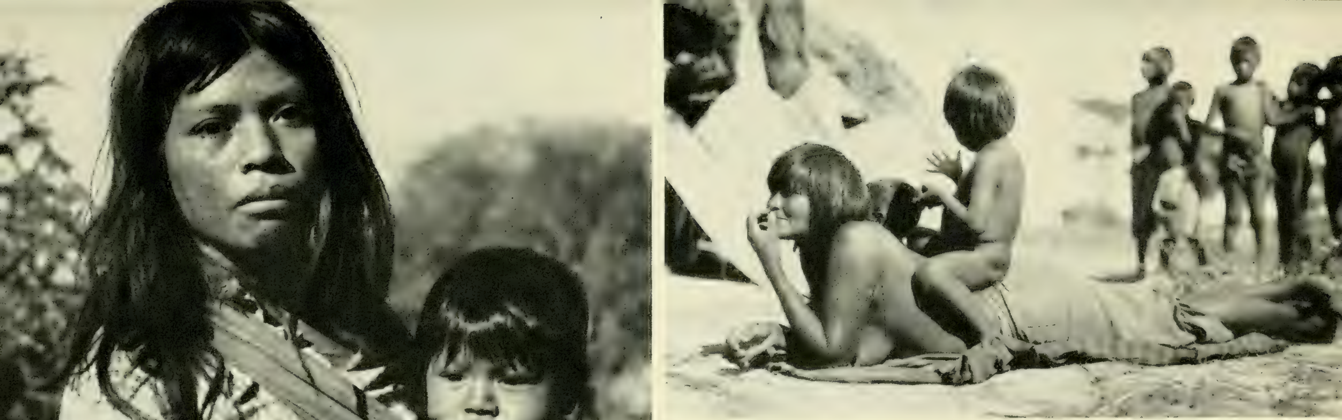


PLATE 67.—**Chaco children.** *Left: Mataco* mother carrying child in sling. (Courtesy Mann.) *Right: Pilagá* mother and child in characteristic pose. (Courtesy Alfred Métraux.)

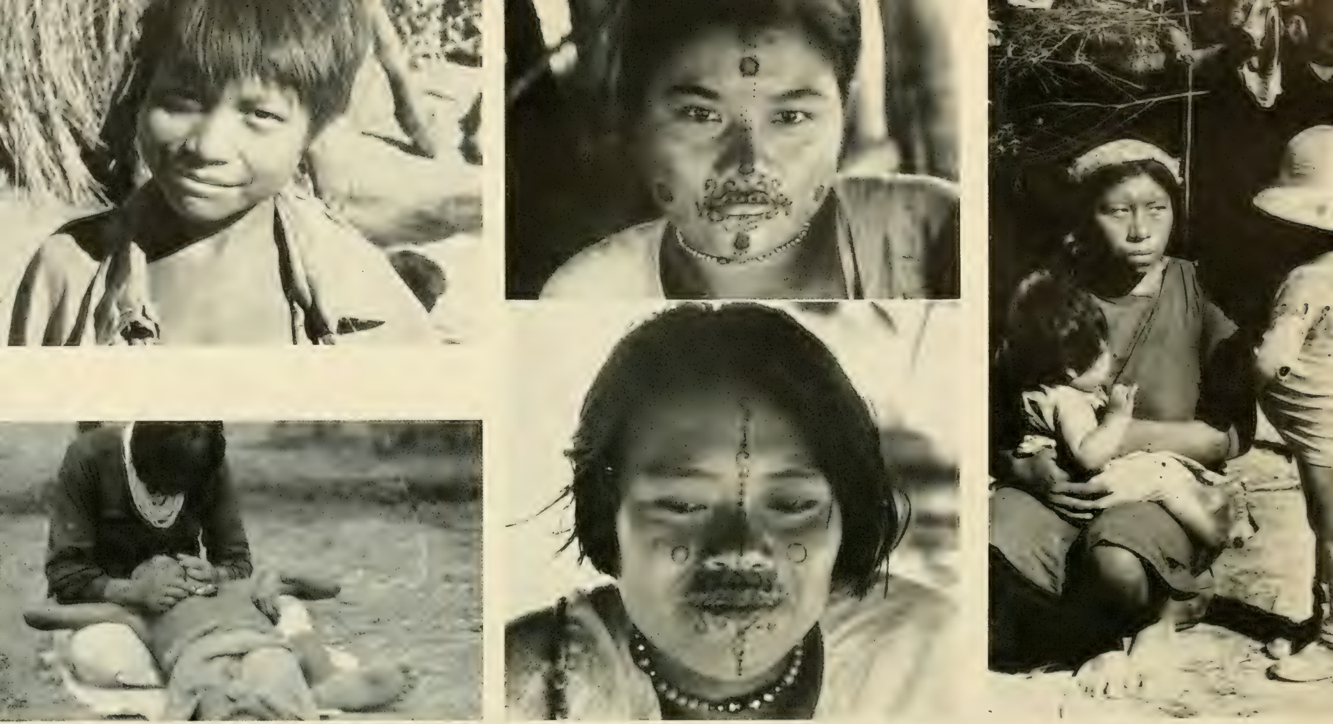


Plate 68. **Chaco Indian types.** *Top (left): Pilagá* boy. (Courtesy Alfred Métraux.) *Top (center): Mbayá* facial painting. (Courtesy Claude Lévi-Strauss.) *Right: Pilagá* mother. (Courtesy Mann.) *Bottom (left): Pilagá* woman tattooing a girl. (Courtesy Alfred Métraux.) *Bottom (center): Mbayá* facial painting. (Courtesy Claude Lévi-Strauss.)

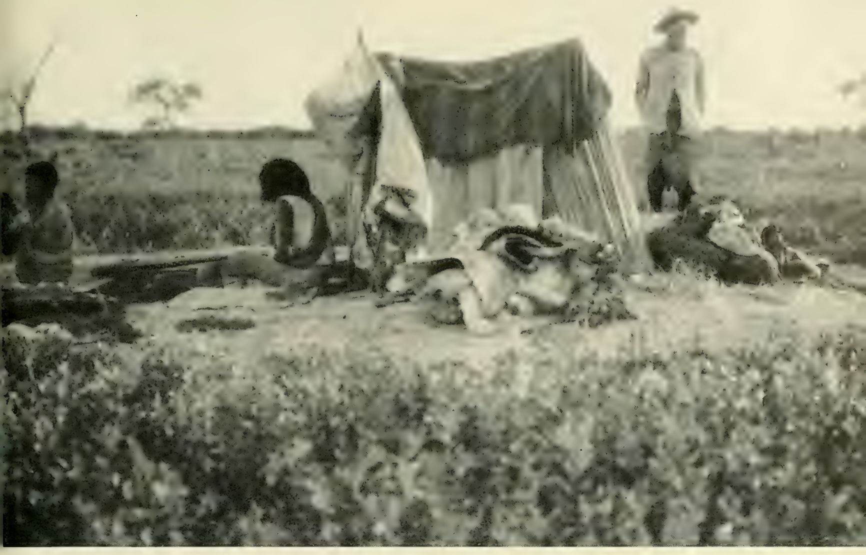
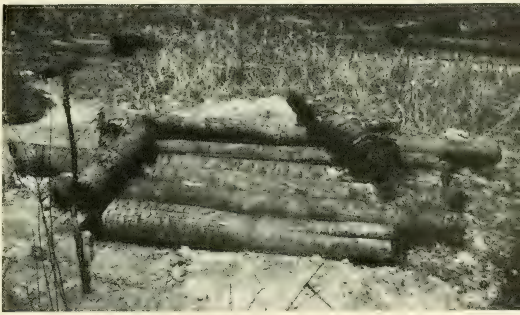
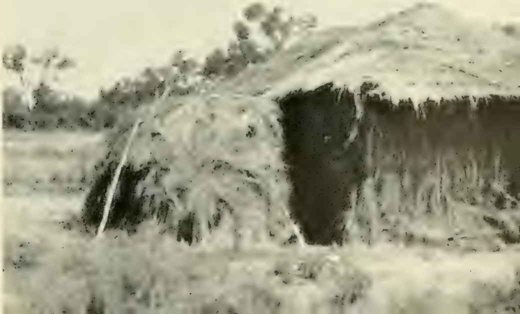


PLATE 69.—**Chaco death customs.** *Top: Pilagá* seclusion hut for widow. *Center: Pilagá* log covered grave. *Bottom: Mataco* widow's seclusion hut, with annex. (Courtesy Alfred Métraux.)





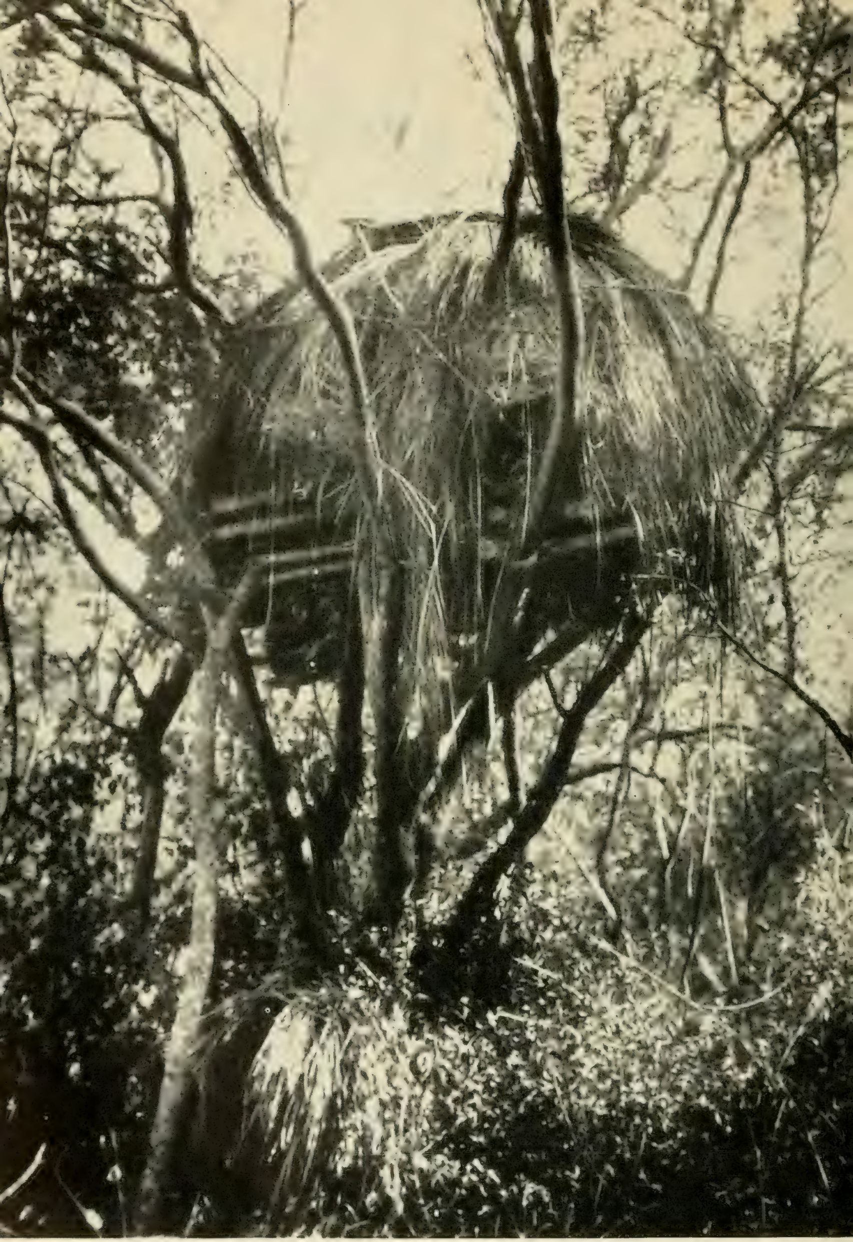


PLATE 70.—**Mataco tree burial.** (Courtesy Enrique Palavecino.)

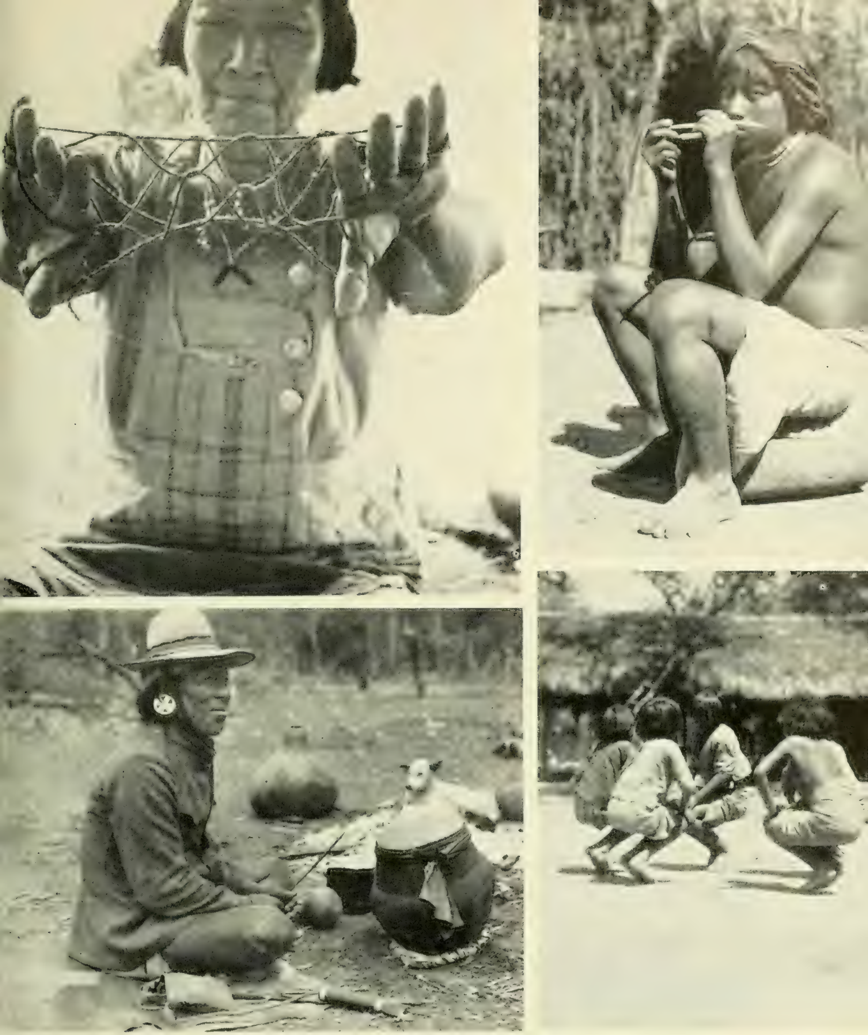


PLATE 71.—**Chaco recreation.** *Top (left): Caduveo* woman making a "cat's cradle." (Courtesy Claude Lévi-Strauss.) *Top (right): Pilagá* boy playing musical bow. (Courtesy Alfred Métraux.) *Bottom (left): Ashluslay* drummer. *Bottom (right): Pilagá* girls dancing. (Courtesy Alfred Métraux.)

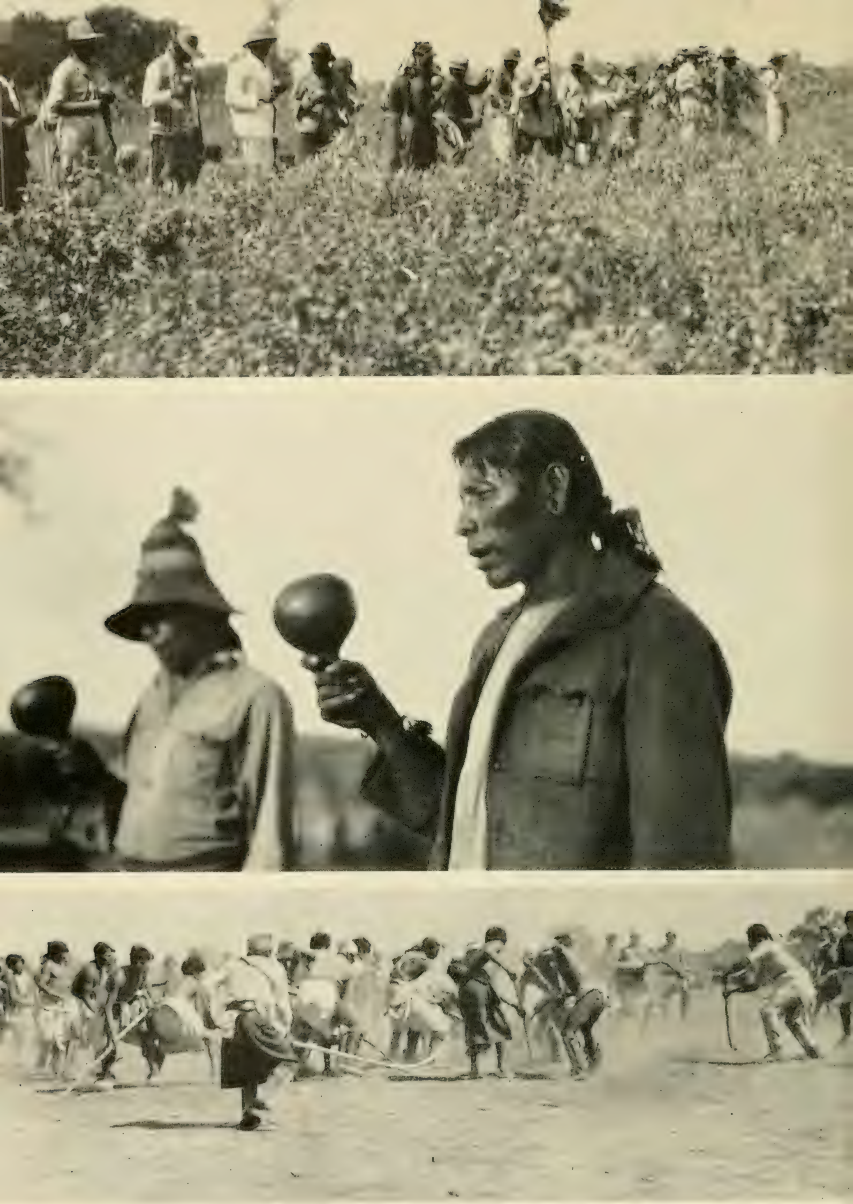


PLATE 72.—**Chaco religion and games.** *Top: Mataco* ritual to expel evil. *Center: Pilagá* chief shaking shaman's rattle and chanting. *Bottom: Mataco* hockey game. (Courtesy Alfred Métraux.)

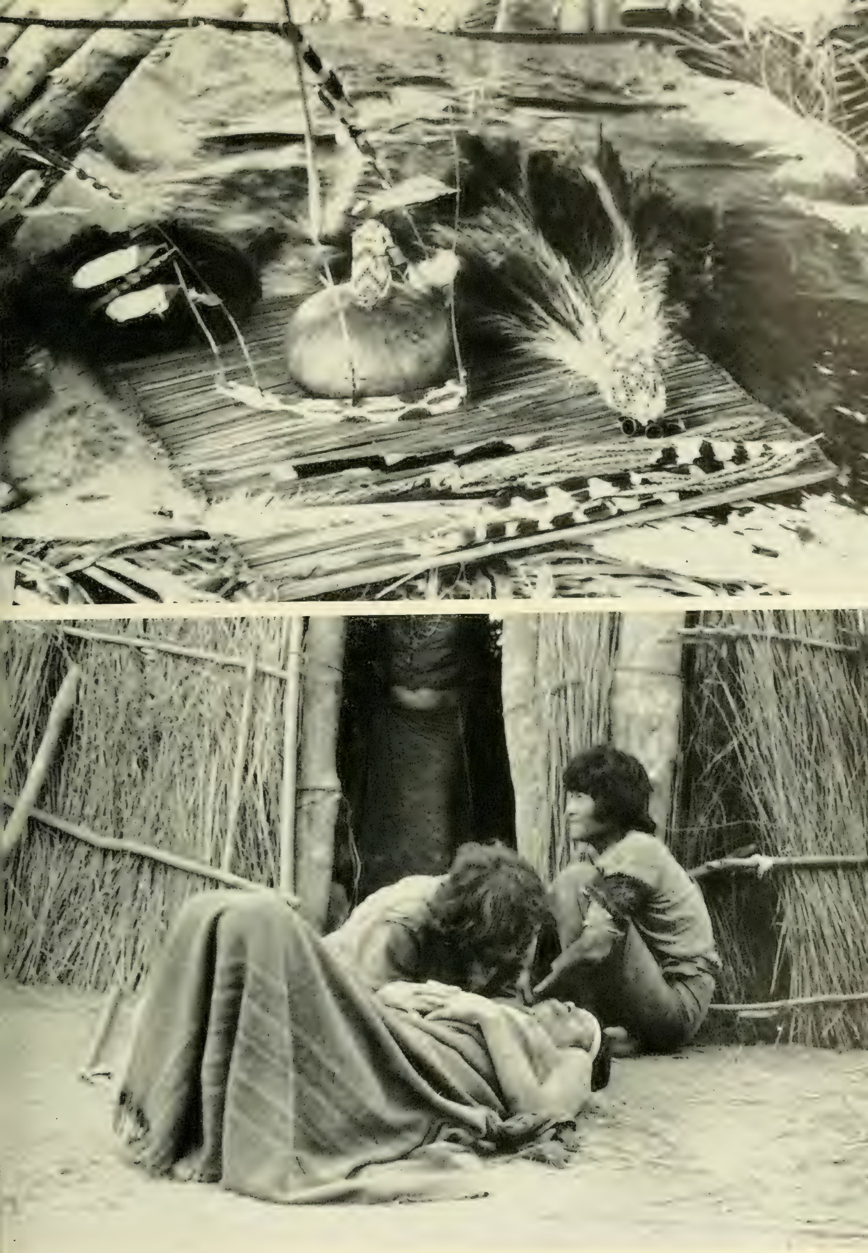


PLATE 73.—**Chaco shamanism.** *Top: Caduveo* shaman's outfit. (Courtesy Claude Lévi-Strauss.) *Bottom: Pilagá* shaman blowing on sick person. (Courtesy Alfred Métraux.)

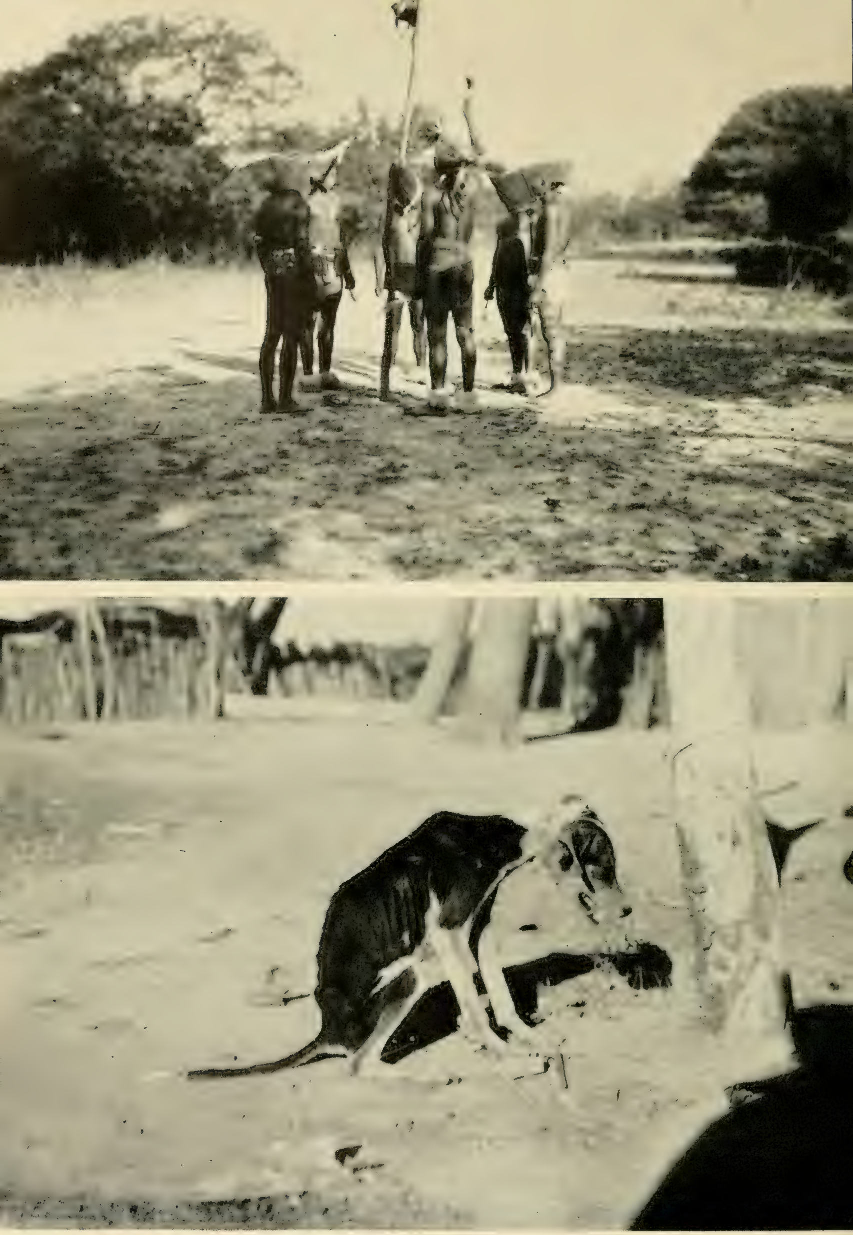


PLATE 74.—**Chaco Indian types.** *Top: Toba* scalp dance, with scalp on top of post. *Bottom: Mataco* dog suffering from starvation. (Courtesy Alfred Métraux.)

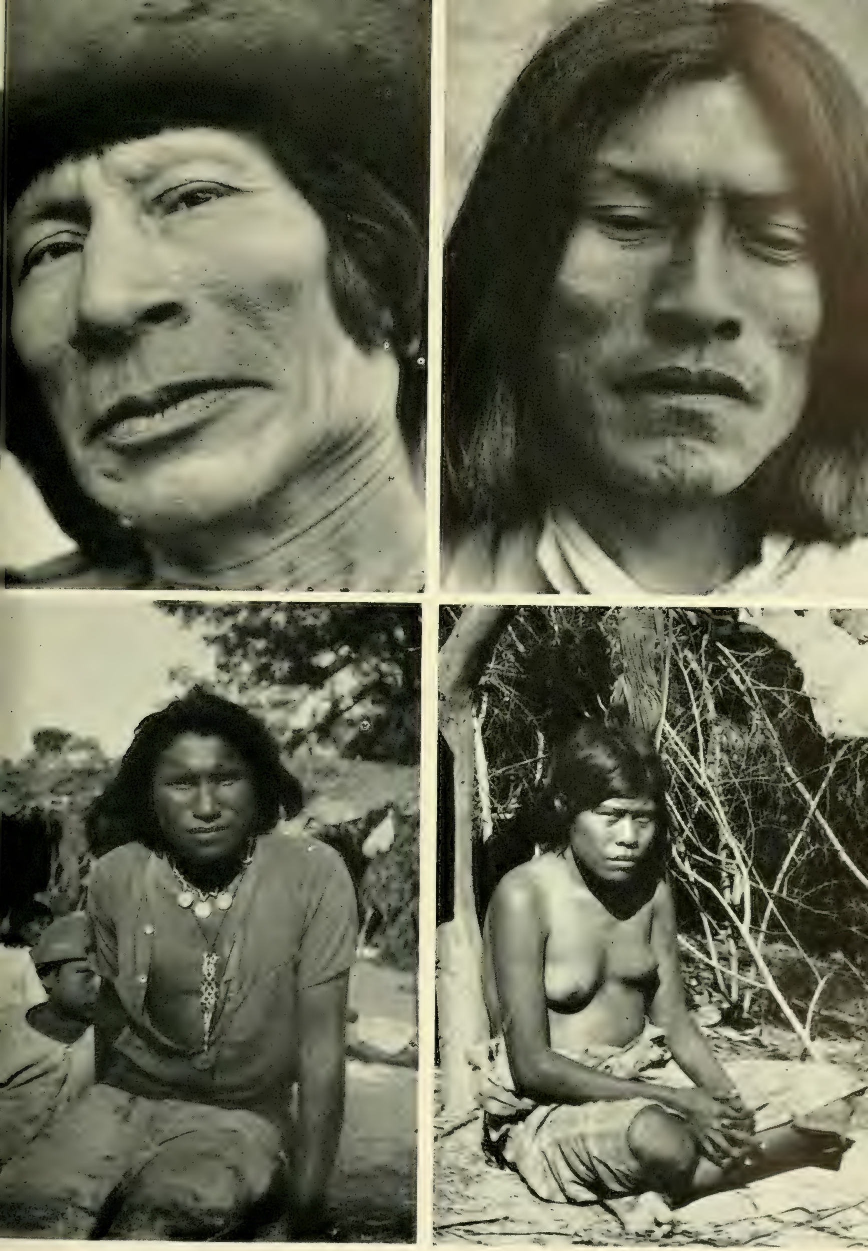


PLATE 75.—**Chaco Indian types.** *Top (left): Toba* man. *Top (right): Pilagá* man. *Bottom (left): Pilagá* man. *Bottom (right): Pilagá* woman. (Courtesy Mann.)

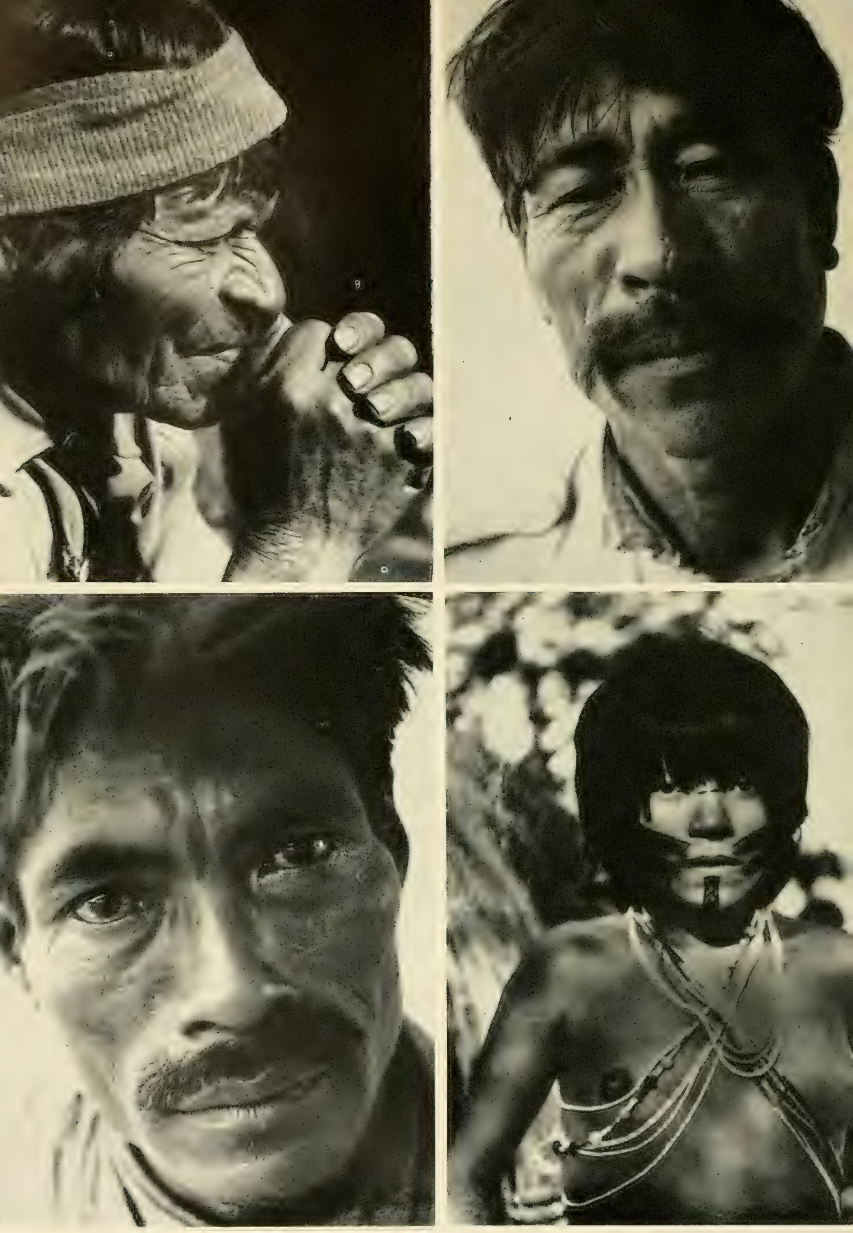


PLATE 76.—**Chaco Indian types.** *Top (letf): Toba* chief. *Top (right): Mataco* man, tattooed chin. *Bottom (left): Mataco* man. *Bottom (right): Maca* girl, painted face. (Courtesy Mann.)

me, I have already suffered much" (Karsten, 1932, p. 172), but there is no record that other tribes prayed to spirits. On the other hand, magic treatment of diseases among the *Toba* and the *Mataco* always includes a mock offering to the spirit or demon which has caused the illness. All kinds of valuable objects are piled up and presented to it with the undertsanding that it will be content with the immaterial essence of them.

Ritual.—The magic ritual of the Chaco Indians follows, as a rule, very simple patterns. Most of their ceremonies have a coercive character and are aimed either at curbing some malignant power or at directly influencing nature or men. Such great power is attributed to chanting and to the sound of the gourd rattle which accompanies it that most of the Chaco magic rites consist of the monotonous repetition of a melodious theme with meaningless words or syllables. Only rarely, the conjuration includes a short sentence, generally a request that the evil go away. The chanter usually starts with a low murmur which rises gradually and then falls into a deep tone. A Pilcomayo River Indian will chant and shake his rattle (pl. 72, *center*) on many occasions: To keep evil spirits at a distance, when he wakes up after a bad dream, when some danger threatens at night, to gain the favor of a girl, to bring good luck to women who collect fruits, to insure a big catch of fish or game, and to help the fermentation of algarroba beer. When a group of *Pilagá* men are about to leave for a journey, old women hop around them raising both arms and singing a sort of blessing. Among the ancient *Abipón*, one of the main duties of female shamans was to dance and sing in any sacred circumstance.

Beating a drum, although less used, has the same ritual power as the tinkling of a gourd rattle. The *Mataco* drum to hasten the maturity of algarroba pods and to help girls in the critical period of their first menstruation. Spirits are easily frightened off by the jingle of the deer hoofs or bells, which the shamans and their assistants attach to their ankles and belts when they cure a sick person by expelling the supernatural intruder. Unusual magical power is attributed to rattles made of a special kind of gourd and filled with sacred beetles. Round wooden whistles and bone whistles in the form of flutes also have magical uses. *Toba* shamans are said to whirl a sort of bull-roarer in order to bring rain (Rydén, 1933).

Many Chaco dances have a definite ceremonial value. Thus, at the end of the dry season *Toba* women, directed by a shaman, dance and fling themselves to the ground as if seized by a sudden illness. Shamans pretend to cure them, while other dancers turn around them, stamping the ground, yelling, and shaking their rattles. This dance is to assure the health of the women during the summer. The jaguar dance of the *Toba* is supposed to protect women from jaguar attacks.

Boys and girls dance in a circle, each boy lashing the loins of the girl in front of him with a cloth. The girls fall to the ground, when a shaman, acting the part of a jaguar, sucks and blows on them (Karsten, 1932, p. 150). When girls come of age (*Mataco*, *Ashluslay*, *Lengua*), the women and boys ritually dance to dramatize the attacks of the spirits and their final defeat.

By chanting and dancing to the point of exhaustion, the *Toba* try to hasten the maturity of chañar fruit. The *Chorotí* dance around a fish in the hope that the ceremony will make fish come in great quantities to a certain place.

Dancing figures in the treatment of disease: While the *Mataco* or *Toba* shaman blows and murmurs incantations over a patient, assistants wearing belts with bells attached and deer-hoof anklets, perform a sort of rhythmical, half-jumping walk. Dancing, according to the *Mataco*, frightens the disease demon away or makes him tired, as he feels compelled to join in the dance.

When rain falls without thunder—a sign that the spirits are kindly disposed—the *Chamacoco* dress in their best ornaments, with jingles attached to hands and feet, and indulge in demonstrations of wild joy. They throw themselves to the ground and play tricks on one another.

Collective rites.—When a community is threatened, everyone may join in a ceremony to ward off the impending evil. When a *Mataco* band dreads an epidemic, it symbolically fights the spirits or disease demons. Both sexes wearing red head bands with feathers, necklaces, and red waistcoats line up behind a row of arrows stuck into the ground (pl. 72, *top*). They begin the counter-offensive with magical songs accompanied by gourd rattles. At intervals the shamans take a snuff of hatax (cebil, *Piptadenia macrocarpa*) powder to achieve a mild state of trance, when their liberated souls go to the sky in the form of birds to challenge the hostile spirits. Then everyone threatens the invisible enemies with rattles and bunches of feathers, marches against them, and steps on them as if to crush them. The ceremony is concluded with a general disinfection: The performers blow on each other, tinkle their rattles all over their neighbors' bodies, and dust them with feather bundles. The souls of the dead shamans may be invited to participate in the ceremony, and some cebil powder is dropped on the ground for them.

When a strong south wind blows, the *Lengua* shake their blankets in hope of throwing the sickness out into the wind, a rite which was also practiced by the *Mbayá* and by the Patagonian tribes.

Ceremonial objects, charms, and amulets.—The *Lengua* regard red head bands with feather fringes as a protection against evil spirits, especially water demons. When a *Mataco* deals with the supernatural world, he also puts on a red head band, and possibly a red knitted wool shirt. Thread crosses inserted in head bands deter invisible enemies. Everyone who takes part in a rite or who must face danger paints his face with black or red designs to insure his safety. All Chaco Indians use hunting charms. The *Toba* wear around their waists an elongated bag made of a rhea's neck containing diverse plants and animal exuviae, which they expect to bring abundant game. The *Lengua* use wax images to bring good hunting luck. The *Mataco* and the other Pilcomayo River Indians usually wear around their necks one or more pouches containing medicinal plants. *Mocoví* men attached deer hoofs around their wrists and ankles in order to become faster runners (Baucke, 1870, p. 120).

Boys and girls employ charms and talismans to assure the success of their love affairs. (See Arnott, 1935, pp. 294–296.)

In most Chaco tribes, if a man engaged in heavy work feels tired, he draws blood from his limbs by pricking the skin with an awl made of rhea or jaguar bone. The *Guaicuruan*-speaking Indians give much importance to these scarifications and encourage even small children to jab themselves. During drinking bouts, the *Abipón* pricked their breasts, arms, and tongues with a bundle of thorns, or with the sharp bones of a caiman's back, with much loss of blood. On similar occasions, *Payaguá* men had shamans pierce their skin with wooden skewers or stringray darts. Some, like the *Abipón*, wounded their penises and allowed the blood to drip into a hole in the ground. Famous warriors voluntarily had their tongues perforated with a wooden awl (Aguirre, 1911, p. 367).

The *Abipón* and the *Mocoví* credited caiman's teeth with great virtue to heal serpent's bites when applied againsts the wound or worn around the neck.

Omens and dreams.—Chaco Indians pay close attention to some natural phenomena which they interpret as presages or omens. The *Mocoví* attributed ominous significance to the cry of a bird, which was supposed to say, "Flee away lest you be swallowed by the earth," and to the heron's call. The *Toba* do not like certain black birds to sit on their huts. When a flock of these birds fly by their village, they make noises to chase them away.

When a war party comes upon a wildcat or a jaguar scratching the earth, the warriors prefer to return home. If they witness a fight between two yulo birds, they observe carefully the direction in which the defeated bird flies, and believe they are sure to win if it goes toward the enemy.

A comet is regarded as the harbinger of an epidemic; a meteor foretells the death of a witch doctor. (See Grubb, 1914, p. 124.)

> Dreams play a very important part in the life of an Indian, and to some extent govern many of his actions.

This statement by the missionary Grubb (1913, p. 127), has been confirmed by observations made in several Chaco tribes (*Toba*, *Mataco*, *Ashluslay*, and others). The *Lengua* explain that during sleep the soul leaves the body and has many adventures which often are construed as real. Dreams are regarded by the Indian "as warnings and guides to his conduct" (Grubb, 1913, p. 127). The actions of a person seen in a dream are often regarded as the expression of his actual intentions, and the dreamer subsequently acts accordingly.

Religious feasts.—The tribes of the Bermejo River—*Paisan*, *Atalala*, and probably *Mataco*—celebrated ceremonies which brought them, symbolically, in direct contact with the supernatural. Such feasts contained a dramatic element which seems absent from the religious life of modern Indians in the same region, and may either have vanished or escaped the attention of modern observers. There is, in a text by the Jesuit Camaño y Bazán (1931), a detailed account of one of these "mysteries."

The *Vilela* planted in the ground 10 or 12 poles decorated with painted designs. The assembled shamans designated a young man to impersonate a god called Gos (in *Vilela*, "spirit"), and appointed a girl to be the god's wife and a group of boys to be his servants. Near the poles, two huts were erected in which the spirit and his suite were lodged before and during the ceremonies. On the appointed day, the youth of the village, covered with feathers and smeared with paint, came to the sacred spot carrying jars of beer. They danced and addressed prayers to the spirit begging for rain and imploring his protection against epidemics, after which Gos, with his wife and servants, emerged from a grove where they had hidden the day before. The boy impersonating the god wore a huge tapering headdress of straw, provided with "horns," and concealed his whole body under skins and bundles of straw. His wife was naked but for a net apron, and his followers wore only feather belts. They all concealed their faces behind small painted sticks. The divine couple and their escorts danced around the poles, shouting, grimacing, and striking the poles with painted sticks. After a while, they retired to their hut. At noon and in the evening of the following days, they repeated their performance.

The same ritual pattern was followed on other more festive occasions. Young people with feather headdresses, bracelets, belts, and anklets danced around a quebracho blanco or a guayacan tree, whistling and shouting. A naked girl accompanied the dancers. During other ceremonies young people of both sexes ran around the village carrying sticks trimmed with feathers.[52]

Father Remedi, who was well acquainted with the *Mataco* of the Bermejo River, was told that they celebrated a feast during which the

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[52] In another version of the same feast given by Father Alonso Sanchez, it is said that on the last day of the feast, just before dawn, the dancers broke the beer jars (G. Fúrlong. 1939, p. 57).

"devil" came from the bush where he had been in hiding and danced with the people, amusing them with his leaps and antics. Suddenly everyone stood silent while the god-impersonator made prophecies about the next harvest, the abundance of game, and impending diseases, and answered the individuals who consulted him about their own future (Lafone-Quevedo, 1896 a, 17:348).[53]

The appearance of the Pleiades above the horizon in April or May, which marked the new year, occasioned much rejoicing among the tribes of the *Guaicuruan* stock and the *Guaná* under their direct influence. The *Abipón* congratulated the star cluster as if it were a man. They drank mead, and a female shaman danced to trumpets, while the spectators shouted, each striking his mouth with his hands. During the ceremony, the female shaman made the warriors swift by touching their thighs with her rattle. This feast quite often coincided with the formal initiation of male and female shamans.

The feast of the Pleiades, one of the major religious events of the year, was in every *Mbayá* village the occasion for stripping the huts of their mat coverings, which they struck with cudgels to drive away any evil influence which lurked there. This general disinfection, strongly reminiscent of the expulsion of the Gualichu among the *Araucanians* and Patagonians, was to ward off epidemics and disasters during the coming year (Sánchez Labrador, 1910–17, 2:13).

The ceremonial life of the *Tereno* and probably of all the *Guaná* also was particularly intense when the new year began. It is difficult to ascertain whether these Indians adopted the *Mbayá* rites and added a few traditional elements of their own, or whether ceremonies already present in their own earlier culture corresponded to the Pleiades feast of the *Mbayá.*

During the 3 months preceding the rising of the Pleiades, all the *Tereno* shamans of a village chanted and shook their rattles in front of their huts every night. A shaman, whom his colleagues designated master of ceremonies, instructed the villagers to prepare for the coming feast. One of the first rites of the festival was a simulated attack against the chief's hut by an old shaman who, armed with a horn, and with his face veiled by a net, impersonated a spirit. The chief placated the spirit by presenting him and his colleagues with a bull. Then an old man with a spear turned to the four corners of the earth, and announced, "I am the Grandfather of the chiefs of the East; . . . of the West; . . . of the North; and . . . of the South." He also enumerated the important men who lived in each direction. He then lifted his eyes toward the Pleiades and asked of them rain for the fields, and protection against war, diseases, serpent bites, and other evils. He prayed for an hour and concluded with a cry, whereupon the whole band jumped, shouted, and made every possible noise, even with firearms. Amidst this tumult, the old man returned to his hut (Rhode, 1885, p. 409). These performances were followed by sportive amusements, especially boxing.

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[53] According to a letter by Collins M. Smith, a Protestant missionary among the *Mataco,* a similar ceremony was celebrated in 1941. "It would appear that one or two witch doctors cooperated, one of them impersonating some well known witch doctor of bygone days, known by reputation only, even to the oldest of the present generation. All kinds of gifts were brought to them, and after the usual chanting, palavering, etc. he appeared from the depths of the leading witch doctor's hut, having come up out of the ground, and spoke to the assembly."

The climax of the celebration was the Dance of the Rhea Feather Dress. The members of the Bad Moiety, who had made a nuisance of themselves by breaking pots and destroying everything in sight, were finally challenged by those of the Good Moiety, who appeared in war array, each man grasping a painted stick. Then, for a whole day, each moiety danced in a line facing the other and alternately dealt and parried blows at their opponents with their sticks.

The religion of the southern *Arawakan* tribes living north of the Chaco (*Mojo*, *Paressí*, *Paumari*) was characterized by ceremonies in which masked men impersonating spirits terrified the women and levied from them tributes of food or drinks. Certain aspects of *Tereno* feasts were survivals of such ancient ceremonies, though they may have degenerated into mere amusements with little ritual significance. Hidden in some secret spot, the men painted themselves to conceal their identity and pretended to attack the village. The women, instead of running away, defended themselves in a mock battle. A man, painted in black and red, with feathers on his head and covered with twigs, entered the village plaza, where he amused the audience by his antics. The men also built a temporary house on the plaza which was taboo to women. There they disguised themselves with rhea feathers and with facial paintings; then for several successive days they danced for hours around the men's house (Rhode, 1885, p. 409).

The ancient *Mbayá* had a similar feast, but the masked person was a sturdy girl who smeared her face with charcoal and covered herself with branches. A group of naked boys surrounded her and, despite the opposition of the village girls, attempted to strip her of her foliage outfit. When finally they caught her, they took her to a river to wash her face. Such games were played in honor of the chiefs, who afterward appeared masked with boughs.

The Anãpösö feast of the Chamacoco.—The Anãpösö feast is celebrated at the end of the initiation in which the young men are taught the lore of the band and told that the spirits which they have previously greatly feared are only masked men.

As soon as the date of the feast is fixed, the men open a circular clearing in the forest, some 60 feet (18 m.) in diameter, which is approached by a narrow, winding path. Opposite the path, an avenue, 9 to 11 feet (2.5 to 3.5 m.) wide, runs a short distance into the bush. A tall tree surrounded by underbrush stands in the center of the plaza. For 5 or 6 days the feast is heralded by the shrill and distant voice of a spirit which is heard in the village at dusk. The first night only a shaman answers the call; on the following night more and more people sing and rattle their gourds to invoke the mysterious visitor. On the 7th or 8th day, the men go to the dance ground and post a sentry on the path. The women go some distance from the village and sit under the guard of young uninitiated boys, who prevent their walking into the forest. Every woman knows that too much curiosity may be fatal.

On the dance ground men stand by large fires, where they sing and shake their rattles. The fastest runner circles the central tree, followed by two men blowing whistles said to be made of a woman's bones. A line of young and old men follow them. Whenever an exhausted runner stops to rest, he is derided by the spectators. The whistlers are relieved without a single interruption in the alternate rhythm of the whistling. Suddenly the call of a spirit sounds at a distance. Everybody squats around the fires, except the first three runners and a shaman, who starts a chant. The spirit's second call is received with shouts, and a man holding a firebrand turns rapidly around the tree in the opposite direction to the three runners.

This wild running around the tree alternates with the spirit's calls during this and 3 or 4 successive nights. On the 4th or 5th night, everyone paints himself red with white stripes across the chest. Old men eat the best morsels of an armadillo and pass the remainder to the younger people. During a general silence, the voice of the spirit is heard and greeted with shouts of joy. The chief converses with the spirit, who is then recognized as the messenger of the Great Anãpösö, and conveys through him a formal invitation for all the Anãpösö to dance at the village. The spirit retires, his voice gradually dying away. The men dance and shout in joy, while runners continue to circle the tree.

On the following day, the Anãpösö formally appear on the village plaza. Their impersonators have tightly netted bags pulled over their heads and hammocks wrapped around their bodies; they are profusely decorated with feathers, and the bare parts of the body are painted red, black, and white. Suddenly shouting, running, and jumping like madmen, the Anãpösö rush upon the encampment, where they begin the dance, always keeping up their shouting. The women hide behind a wall of mats, mosquito nets, and rags, where they remain silent with their backs toward the dancing place. Knowing that the sight would bring death, none dares to look. Some even press their faces against the ground. It is believed that if the women were ever to discover that the spirits are really human beings, the whole tribe would perish. (See Métraux, 1943.)

In some bands, the Anãpösö feast has lost much of its sacred character. Among the *Tumerehã*, a *Chamacoco* subtribe, it is merely a dance of the clowns, who sing and go through antics. On the last day, they remove their masks openly and paint their faces red.

SHAMANISM

Every Chaco band has many individuals who are capable of treating a sick person or chanting to avert some impending disaster. It is, therefore, sometimes difficult to distinguish between a person with a smattering of magical arts and a professional shaman.

Initiation and training.—Among the *Lengua*, the profession of shaman often runs in a family, but, here as elesewhere, it is not strictly hereditary.

In theory, all the power and knowledge of the *Mataco* shamans come from spirits. A spirit abducts the soul of the would-be shaman, teaches him the spirit language, and treats him as he will later treat his own patients. Among the *Toba*, a novice, in order to become a fullfledged shaman, must receive a revelation in which he sees a spirit who teaches him a new chant. But, in both cases, the candidates also observe the manipulations of professionals and learn from them the methods and secrets of their calling.

Before practicing his art, a medicine man must live in solitude, wandering aimlessly in the bush or sitting in a tree; during the period of retirement, he observes a rigorous fast, eating only such foods as raw dog meat (*Toba*, *Mataco*) or toads and snakes (*Lengua*). The diet of the *Lengua* novice includes little birds plucked alive which transmit to him their power of singing. During his apprenticeship, the candidate repeats his medicine chant continuously as though impelled by a superior force. Afterward an old shaman shoots a small stick at him which penetrates his body without, however, causing any injury (*Toba*). This stick is probably the same one which the shaman is supposed to shoot into his enemies' bodies. When a *Mbayá* apprentice shaman, male or female, had acquired proficiency in chanting, all the shamans of the community gathered in his hut for 2 days to chant special songs while brandishing tufts of rhea feathers. The teachers drank at the expense of the disciple, who spent a whole night chanting and rattling his gourd to show his skill.

The *Kaskihá* novice shamans have to fast for about 3 months before practicing. Throughout this period, they endure periods of several days of complete abstinence from food and water, followed by brief intervals during which they may drink water and eat sweet potatoes.[54]

The training of the *Tereno* shaman starts in childhood. During the last year of training, he must abstain from fresh meat, fat, salt, manioc, and fruit. On a certain day the instructor produces from his mouth a frog, a small snake, or a tarantula, and gives it to his pupil to eat. Finally, the novice must chant at night until a spirit reveals itself to him.

In most Chaco tribes, old women often have medical knowledge and are called to treat a sick person. They also know charms and dances which prove helpful in many circumstances. But true shamans are usually men, except among the *Abipón* and *Tereno*, where some female "jugglers" seem to have had great influence and were constantly active. Among the *Mbayá* some young girls practiced medicine (Sánchez Labrador, 1910–17, 2:32).

Techniques of the shaman.—A shaman has at his service a familiar spirit who performs all the difficult tasks on his behalf and informs him of secrets or future events. *Lule* and *Mataco* shamans snuff a powder made of the seeds of the cebil (*Piptadenia macrocarpa*) to put themselves in a state of mild trance or excitement, when they send their souls in the form of yulo birds to the other world. Their metamorphosis is facilitated by blowing a whistle made from the leg bone of a yulo. The shaman's soul goes to the land of the spirits or visits the Sun, who is a medicine man of great wisdom. If it meets a rival, a battle ensues in which the life of one of the contenders is at stake.

Lengua shamans hypnotize themselves by "sitting in a strained position for hours, fixing their gaze upon some distant object" (Grubb, 1913, p. 146). In this condition, they are supposed to throw their souls out.

Spirits appeared to the *Tereno* shaman in the guise of hawks (*Herpetotheres* sp.), which they conjure up by chanting and rattling their rattles for a whole night, often with the assistance of their relatives. Familiar spirits sometimes took the appearance of jaguars (*Mbayá*).

The curing function of the shaman.—In native eyes the main function of shamans is to cure sick people. There are two theories about the nature of diseases: they may be caused by the intrusion of some object or animal into a person, or by the loss of the soul. Spirits acting either of their own accord or through the will of some witch are held responsible for the presence of pathogenic substances in the patient's body. Some Indians even believe that the pathogenic objects or animals are transformed spirits. For instance, when a person is bitten by a snake, the spirit of the snake enters the body, but it is conceived to turn then into an actual serpent (*Pilagá*). The *Lengua*, *Tereno*, and *Mataco* ascribe their ailments to the presence in the body of spirits in the form of snakes, rats, goats, kittens, or beetles. The *Lengua* fear a beetle flying by because it is regarded as the materialization of the evil which the shaman extracts from his patients' bodies.

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[54] Additional details on the *Kaskihá* shaman's initiation rites are given by Hassler (1894, pp. 356–67), who unfortunately is not reliable. The profession is hereditary in the male line. To consecrate his son, a shaman builds a special cabin, in each corner of which he places a small pot containing herbs soaked in water. The decoction varies with the points of the horizon. During 5 days, the hut is taboo to all except the father. Then the son is taken inside amidst the howls of women. He finds a ceremonial vessel made according to strict rules. The father pours out the contents of the pots, beginning with the one in the east corner. The novice drinks the fermented and ill-smelling beverage, and his father breaks the ceremonial vessel on his head. The candidate then retires for several days in the new hut and observes a strict fast. The power of the shaman resides partly in his saliva impregnated with the magic force of the beverage he has absorbed as a novice. Those who specialize in curing serpent bites suck a serpent and eat raw slices of its flesh.

The view that diseases are caused by the kidnapping of the soul by some demon or spirit occurs simultaneously with the intrusion theory among the *Toba*, *Lengua*, *Mbayá*, *Tereno*, and probably other Chaco tribes.

Some diseases and accidents are attributed to the violation of a taboo by the victim or his relatives. The *Mocoví* traced any infant's ailment to an imprudence of the father, who might, for instance, have eaten tabooed food.

If disease is caused by an intrusion, the shaman, in order to remove the pathogenic substance, proceeds in the following way: He blows (pl. 73) and spits on the patient and chants monotonously in rising and falling tones. The chant has no words, although the shaman may order the evil to go away.[55] The blowing is followed by violent suction which often draws blood. Some *Toba* shamans scratch the ailing region with a knife or with a small board engraved with designs purported to represent a person (Ducci, 1904, p. 173). The shaman, contracting the muscles of his face, acts as if he will vomit, and spits out mucus, which he may claim to be fragments of the object or animal that he has removed from the patient. Often he exhibits a beetle, a piece of wood, or a pebble, which he pretends to have extracted. Among the *Lengua*, the shaman announces in a special chant that the intruding spirit has been cast out and that it is, therefore, safe for the absent soul to return (Grubb, 1913, p. 134).

If the disease is the consequence of soul loss, the shaman sends his familiar spirit or his own soul to discover its whereabouts and to rescue it.

The *Mbayá* shaman cured sick people in a round enclosure made of mats, which nobody could enter lest he lose his sight or his life. He chanted, shaking his rattle, then became silent, when his soul went to the cemetery to bring his patient's soul back. Sometimes he might declare that his own soul was wandering through the bush in search of the vagabond soul. After the quest, he always sucked the patient's body and spat out objects, which he buried in a hole. When extracting foreign bodies, shamans pressed heavily on the patient's stomach with their fists. During the whole treatment the patient was not allowed to open his eyes.

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[55] *Payaguá* shamans, naked except for a rope around the neck, began their treatment by smoking tobacco in a long pipe, then proceeded to frighten off the disease by a variety of sounds from a trumpet made of two halved calabashes sewn together. The cure subsequently followed the usual pattern.

If, during the search for the wandering soul, the *Mbayá* shaman saw it mounted on a horse, he knew the case to be hopeless and abandoned the patient to his fate. Nevertheless, he generally asked the relatives to pay him, though, infuriated by his failure, they might pelt him with firebrands instead. When resentment against an unsuccessful shaman was great, he often joined some other band lest he be murdered by his patients' kinfolk.

The *Tumerchã* blame illness on the sun. Their shamans treat a sick person by spitting in their hands and rubbing the ailing parts of the patient's body. The cure is accompanied by chants and dances, in imitation of the voice and behavior of animals which are regarded as demons (Baldus, 1931 a, p. 89).

Other functions of the shamans.—An important duty of shamans is to protect their band by chanting and shaking their rattles at night when there is a danger from the supernatural world.

When the *Abipón* sensed impending danger, they consulted their female shamans, who gathered in a hut and spent the night beating two large drums and muttering incantations, accompanied by a continual motion of the feet and arms. The next day, the singers received presents, and were anxiously asked what the spirit had said (Dobrizhoffer, 1784, 2:83). When a storm arose, *Mbayá* shamans chanted, shook their rattles, and blew at the clouds to disperse them. *Lengua* shamans provoked rain by tossing the blood of a certain kind of duck upward. *Mbayá*, *Lule*, and *Mataco* shamans dispatched their souls to the sky to bring back rain.

Shamans also can learn about the future by traveling at night to the land of the spirits. *Mataco* medicine men send their souls to the Sun for the same purpose, but the journey is perilous, as the Sun, a great Cannibal, does not wish to be bothered by visitors. He places in the shamans' way various traps which they must avoid before they can come near him. Yet, if they succeed, the Sun is ready to answer all their queries.

Formerly, when a *Mbayá*, *Abipón*, *Toba*, or *Mataco* shaman wished to consult a spirit—among the *Abipón*, the soul of a relative—he crept under a blanket, shook his rattle, and muttered incantations. After a while he trembled and felt a shock, which was unmistakable evidence that a spirit had arrived. The shaman then conversed with the spirit, who answered in a characteristically shrill voice.

Mbayá shamans not only could forsee future events, but by their magic they could prevent their realization. Thus, they could forestall diseases, wars, and famines that might have destroyed their people. Shamans among the *Guaicuruan*-speaking tribes accompanied military expeditions and by their charms brought victory to their party. They were credited with power to kill their enemies merely by blowing at them. When a *Mbayá* band traveled, the shamans chanted every night to insure the success of the journey.

Influence and prestige of shamans.—The influence of the shamans on their community is often considerable, and now and then they become the actual leaders of the band. On the other hand, chiefs are often shamans. Some shamans perform miracles to increase their prestige. *Lengua* medicine men claimed to be able to eat a very poisonous root without feeling any ill effect. By simple tricks, they made the Indians believe that they could spit seeds which promptly developed into full-grown ripe pumpkins.

Tereno shamans knew many sleight-of-hand tricks: They extracted feathers from their nose; swallowed arrows; and pretended to remove a limb, arm or leg, which they later replaced. They also were serpent charmers. *Mataco* shamans walk on hot ashes without suffering harm.

The *Abipón*, fearing vengeance, accounted it a crime to contradict their shamans' words or to oppose their desires or commands. Throughout the Chaco, shamans derive substantial benefits from their profession. After an expedition, the *Abipón* awarded the shaman who had accompanied them the best part of the spoils. Dobrizhoffer (1874, 2:87) remarks that medicine men "had plenty of excellent horses, and domestic furniture superior to that of the rest." *Toba* shamans insist that their clients pay them speedily on the ground that if they are remiss, the offended spirit will punish both the doctor and his patient.

Witchcraft.—There is in the Chaco great fear of sorcery, which is held responsible for most evils. The *Abipón* told Dobrizhoffer that if it were not for sorcerers, people would probably live forever. Even such accidents as snake bites and violent death at the hands of enemies are often regarded as the work of some ill-disposed shaman.

Sorcery follows the common pattern of imitative and contagious magic: the sorcerer secures some exuviae of the person he wishes to harm and subjects them to manipulations symbolic of the fate he wishes to bring upon his victim. Even Christianized *Mataco* are reluctant to give up specimens of their hair lest they be bewitched. Few Indians, even those familiar with civilization, will allow a stranger to take their pictures, since they believe these may become the instrument of their ruin.

Sorcerers may cause disease or death by shooting their enemies with invisible sticks or thorns, which they keep inside their own bodies (*Ashluslay*, *Toba*). A charm or spell suffices to direct the missile against the victim.

The shamans are said to have the power of changing themselves into jaguars in order to attack and devour people. Only a few years ago, a *Pilagá* Indian in Sombrero Negro made several attempts to turn himself into a jaguar, hoping to avenge his grievance against one of the local chiefs. He painted his body with black stripes, and pranced around his hut roaring and shouting, "I am a jaguar." He pounced upon his enemy like a jaguar, and some people even maintained that his nails had turned into claws.

Similar scenes were witnessed by Dobrizhoffer (1784, 1:87):

> When these bugbears think anyone inimical or injurious to them, they will threaten to change themselves into a tiger and tear every one of their fellow men to pieces. No sooner do they begin to imitate the roaring of a tiger, than all the neighbors fly away in every direction. From a distance, however, they hear the feigned sound. "Alas! his whole body is beginning to be covered with tiger spots!" cry they. "Look, his nails are growing," the fearstruck women exclaim, although they cannot see the rogue, who is concealed within his tent; but that distracted fear presents things to their eyes which have no real existence.

MYTHOLOGY

Extensive collections of Chaco folklore exist only for the *Toba* and the *Mataco* (Nordenskiöld, 1912; Karsten, 1932; Métraux, 1935, 1939, 1941; Palavecino, 1940). For the other tribes (*Lengua*, *Chamacoco*) our information is based on scattered and often fragmentary material. (Grubb, 1914; Baldus, 1931 a; Alarcon y Cañedo, 1926.)

Cosmogony.—Many stars and contellations are identified with persons, animals, or objects which figure in the mythology. Thus the Southern Cross and Coalsack nearby represent a fabulous rhea pursued by two young men, α and β Centauri, and by their dogs, α and β Crucis (*Mataco*, *Toba*, *Mocoví*). The Milky Way is a road followed by mythical people (*Toba*), or the ashes of a celestial tree which was burned down (*Mocoví*). The *Mataco* and the *Toba* see a big yulo bird (*Tantalus cristatus*) in a constellation formed by the Pleiades, the Hyades, and the Belt of Orion. To the *Toba*, the "Tres Marías" (α, ϵ, and ζ Orionis) are three old women who live in a large house with a garden (Betelguese, Bellatrix, and κ Orionis). ζ 1 and ζ 2 Scorpii are two "grandchildren" (*Mataco*). The Hyades are visualized as a chuña bird (*Chunga burmeisteri*). The *Toba* say the Magellanic Clouds are algarroba flour pounded by a Star Woman (Venus) in her celestial mortar (Magellanic Clouds) (*Toba*). (For the star mythology of the Chaco Indians, see Lehmann-Nitsche, 1923 b, c; 1924–25 a, b, d, e; 1927.)

Sun and Moon.—To most Chaco tribes, Sun is a woman and Moon a man. Among the *Mataco* and *Chamacoco*, the sun and moon appear in tales of the type of the Twin stories, so common in South America. Sun is a clever person who succeeds in all his undertakings while Moon, always anxious to imitate him, fails and is finally killed. Sun calls on Mosquito, who has a beautiful field, and receives manioc and other foods from his friend. Moon wants to do likewise but does not notice Mosquito, whom he almost tramples to death. Mosquito bites Moon, who dies, but Sun resurrects him (*Chamacoco*).

Sun fishes for piranha, using his son as a bait. Moon wants to do the same, but the piranha eats his child (*Chamacoco*).

Sun catches ducks by changing himself into a duck. Moon uses the the same stratagem, but is detected and scratched by the infuriated birds, hence the spots on the Moon (*Mataco*).

Eclipses.—As a rule, eclipses are interpreted as attacks on the Moon or the Sun by a celestial jaguar (*Toba*, *Abipón*, *Mocoví*, *Mataco*, *Vilela*). The ancient *Lule* believed that the phenomenon was caused by a large bird which hid the Sun with his wings.

Meteoric phenomena.—Like many North American tribes, the *Chorotí*, *Lengua*, and *Ashluslay* hold that thunder is produced by mythical birds. According to the *Ashluslay*, thunder is their cry and lightning the fire which they drop over the earth.

In *Toba* lore, the thunderbolt is an old hairy woman who falls during a storm and can return to the sky only in the smoke of a fire kindled by a friendly passerby.

The *Mataco*, *Toba*, and *Chamacoco* speak of Rain as a person (a spirit) who rides across the sky. The *Chamacoco* see clouds as large birds full of water, but also believe that rainfall depends on the good-will of spirits who guard a big celestial jar full of water. The *Ashluslay* say that rain is produced by the Thunderbirds, who in their anger open a celestial container full of water; and that the rainbow is a huge serpent.

The Universe.—Many Chaco Indians describe the universe as formed of many superimposed layers. The *Mataco* divide it into three strata: the sky, the earth, and the underworld. The *Chamacoco* distinguish seven skies or layers, five above our earth and two below, each of which corresponds to a different color.

The *Mocoví*, *Toba*, *Mataco*, and *Chamacoco* have a myth about a gigantic tree which once connected the sky and the earth and by which the men of this earth climbed to hunt in the world above. Finally, a vengeful woman—in some versions a man—burned the tree. The people who remained in the sky were changed into the Pleiades (*Mataco*).

At the end of the earth there is an unextinguishable fire (*Mbayá*, *Mataco*), which the *Mataco* associate with the fire spirits. These spirits once set fire to the world to take revenge on the hornero bird (*Furnarius rufus*), who could not conceal his merriment when he saw fire issuing from their buttocks during a dance.

Creation myth.—The *Lengua* attribute the creation of the Universe to an enormous beetle. First he caused evil spirits to come out from under the earth and then produced a man and a woman from the "grains of soil he had thrown away." The first couple was glued together until Beetle separated them.

The ancient *Mbayá* had three different versions of the origin of mankind: (1) Men lived underground; a dog scented their presence and dug them out. This motif is still remembered by modern *Caduveo*. (2) The first men were hatched by a large bird which nested in a big hole on top of a mountain. (3) Mankind originated in a large pit, located in the north.

The *Tereno* tell of two mythical brothers who were catching birds in a trap. Following the bloody tracks of some which escaped, they arrived at a hole leading far down into the earth. Then out of this hole the *Tereno* came, blinded by the sunlight and shivering with cold (Hay, 1928, p. 124).

In a myth common to both the *Toba* and *Mataco*, women are said to have come from the sky. They climbed down by a rope in order to steal the food of men, who then were animals. A bird cut the rope and the women were obliged to remain here. Men could not have access to them until Carancho, the culture hero, broke their vaginal teeth.

The first *Chamacoco* were imprisoned in a quebracho tree so huge that they could play a ball game in it. A man cleaved the trunk, thus allowing mankind to emerge.

Cataclysms.—According to Chaco mythology, four different cataclysms destroyed the world: (1) A flood was caused by a menstruating girl who went for water and thus offended a water python (Rainbow) (*Toba*, *Mataco*, *Lengua*). (2) A big fire started by the fall of Sun consumed the world. (3) A wave of cold killed all the people. (4) Absolute darkness sat upon the earth for a whole year. As a result of each catastrophe some people were transformed into birds and animals (*Toba*, *Mocoví*, *Mataco*, *Chorotí*).

Origin of fire.—Rabbit is represented either as the jealous guardian of fire who was robbed by Hummingbird (*Toba*), or as the hero who stole it from jaguar, its former owner (*Mataco*). Rabbit is also the inventor of the fire drill, but it is Carancho who taught men how to use it (*Kaskihá*).

According to the *Ashluslay*, fire was formerly the property of the Thunder Birds, who had been hatched from hummingbird eggs.

Men discovered the properties of fire when they tasted a snail the birds roasted. The Thunder Birds resented men's discovery so much that they have since been their worst enemies. They terrify them with their cries (thunder), produce sparks with their wings (lightning), and throw thunderbolts at men and tall trees. Fire was a gift from Carancho to the *Chamacoco.* The culture hero received it from Owl.

The culture hero.—The culture hero is an outstanding figure in *Toba* folklore, in which he is identified with Carancho, a hawk (caracara) (*Polyborus plancus*), common in the Chaco. He is, above all, the exterminator of cruel and evil people; for instance, he kills the man with the sharpened leg, the man-eating bird, and the monster who catches people in a trap. His actual contributions to culture are few, though he showed men how to make and use the fire drill, how to treat the sick, and how to hunt game. In many a story, Carancho appears together with Fox, the Trickster; the pattern of their common adventures corresponds to that of the cycles of the Mythical Twins, found in much other South American folklore. Carancho plays the wise and clever brother, Fox the stupid and mischievous one. Carancho was also a culture hero to the *Mbayá* and the *Kaskihá.*

Other mythical characters helped mankind in their struggle for life: Thus, in *Toba* folklore, Kosodot, the little man, taught men how to hunt, and his wife, Kopilitara, showed women how to make pots; Spider was the first weaver.

The transformers.—In many South American mythologies, one of the culture hero's main functions is to transform animals and men into new shapes. In *Toba* folklore, Carancho sometimes assumes that role, but the Transformer, par excellence, is Nedamik, an aquatic bird.

Wondermakers.—The wondermakers are legendary characters endowed with great magic power. They usually appear as children or abused persons who later prove their mettle and punish their offenders. The Asin of the *Toba* is a bald, big-bellied individual who turns out to be a great warrior and a man capable of producing food from under his skin robe. The Child-born-in-a-pot, thanks to his miraculous arrow, becomes a famous hunter and fisherman (*Toba*, *Mataco*).

Trickster.—The trickster is a favorite character of *Toba* and *Mataco* folklore. Among the former, he is personified by Fox; among the latter by a man, Tawk^{c}wax. In both tribes he is a most colorful creature, greedy, lewd, boastful, and easily fooled. Out of bad temper or to satisfy his vanity, he throws himself into countless adventures. Invariably he is made into a public laughing stock or dies an unpleasant death. The trickster is responsible for several unhappy features of our world; for instance, he made the snake venomous, he immobilized fruit trees which formerly responded to the call of men, he created the stingray, and he caused a flood by shooting the fish in the big yuchan tree (*Chorisia insignis*).

Spirits.—Spirits and ghosts sometimes appear as the protagonists in Chaco folklore, but, judging from our available material, they seem to figure less prominently in the oral literature of the area than they do in other regions of South America; for instance, in the Amazon Basin. Spirits are represented as people who live like men, though they are distinct from them in many respects. They are eager to marry or kidnap the men and women of this world. According to *Lengua* folklore, the golden age ended when a girl responded to the call of a tree spirit (Alarcón y Cañedo, 1924, p. 76). A *Mataco* was kidnapped by the Inhabitants-of-the-earth, and married one of them. From his wife he received an eyelash which enabled him to see in the dark.

Animal stories.—Animal stories are very popular, but in most cases are interwoven with the adventures of the culture hero or of the trickster.

The themes of Chaco folklore.—Many folkloric themes which occur in the Chaco have a wide distribution in South America. For instance, there is the story of the girl who is made pregnant by magical means and of her baby who picks out his disguised father from a crowd by handing him a bow. The theme of the Tree of Life, which is so common in the Guianas and which also occurs among the *Arawakan Chané*, may have inspired the story of the huge yuchan tree (*Chorisia insignis*) full of fish. The people of old might shoot the fish which swam in the tree, provided they did not harm the big ones. The trickster, ignoring their warnings, struck a big dorado fish with his arrow, and caused it to break the tree with its tail. The world was flooded, but Trickster stopped the water by sticking his spear into the ground. He then led the water to the sea (*Mataco*, *Ashluslay*).

The story of the man who marries a star and then dies in the sky is extremely popular in the Chaco. Like many other themes, it offers an interesting parallel with North American mythology. Likewise the tale of the woman who mates with a dog (*Chorotí*, *Mataco*, *Chamacoco*) suggests a well-known Arctic myth.

The coexistence within a tribe of different stories based on a single fundamental theme, such as the theft of fire, indicates that folklore motifs, like so many material traits, reached the Chaco from various culture areas. Yet Chaco myths, as a whole, have little in common with those of the Amazon Basin, and seem not to have been much influenced by *Chiriguano* folklore.

Although the Andean folklore is still imperfectly known, it is not unlikely that it has many themes which also occur in the Chaco. The importance of Fox among the *Quechua* and *Aymara* also points to the Andes as the possible source of many Chaco folkloric motifs.

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THE PRESENT-DAY INDIANS OF THE GRAN CHACO

By Juan Belaieff

INTRODUCTION

The modern history of the eastern Chaco begins in 1907, when most of the country was sold as private property. The tanning industry soon appeared in Galileo, Pinasco, Casado, Sastre, Talavera, and Guarany, and the margin of the Paraguay Chaco was opened to herdsmen and their cattle (map 1, *No. 5;* map 5).

Previously, the missionaries had penetrated the untrodden parts of the Chaco. An English mission was established at Carayá Vuelta near Confuso. Just before the Chaco war, Catholic missions, authorized by the Bolivian Government, appeared in Esteros and Escalante, and a Salesian mission on the banks of Napegue I.

There were three mission centers: The first had about 300 *Paisiapto-Lengua* and some *Sanapaná;* the second, some *Ashluslay* (*Chulupí*) of the Pilcomayo River; the third, part of the *Angaité* tribe. A few hundred of these Indians now work in the fields and some of the first group own cattle. A strict regime is observed at the missions, and no alcoholic drinks are allowed the Indians. High moral standards are required.

The missions helped improve relations between the estancieros, or ranchers, and their Indian workers. This mutual understanding was furthered by the spread of the *Lengua* speech.

Subsequent to the Chaco war, most cattlemen in the south used the natives as cowboys. Similarly, several estancias of the central area have *Lengua*, *Mascoi*, and *Ashluslay* (*Chulupí*) laborers. The *Guaraní* language was generally adopted in the north among the wood cutters. The *Chamacoco* and, in the south, some *Mascoi* chiefs know Spanish well enough to use it when dealing with their employers. During the latter part of the Chaco war, contact with the soldiers furthered the spread of the *Guaraní* language, which the Indians learned so well that they express themselves with modulations of voice identical to those of their teachers, and they even use the same slang.

Many of the Chaco tribes now verge on extinction, while others retain their aboriginal number and culture in considerable force. The following tabulation presents the author's estimate of the surviving tribes:

Tribes of the North

Tapuí (*Isoseños*): 19 villages	5,000
Tapieté: 5 groups	2,000
Yanaiguá:	1,000
Chané:	600
Guaná: 3 groups	1,200

Tribes of the Monte

Assek:	2,000
Moro (*Takraat, Mura*), *Laant* (*Kozazo, Kurzu*), *Horio* (*Kareluta*), *Loushiru, Hórihi:*	5,000
Chamacoco, Horio, Ebidoso, and *Tómarha:*	700

Tribes of the Plains of the Pilcomayo and Confuso Rivers

Mataco:	20,000
Chorotí:	3,000
Ashluslay (*Chulupí*): 4 subtribes	6,000
Macá:	1,000
Toba: 6 subtribes	5,000
Pilagá: 2 subtribes	3,500
Mascoi:	1,000
Kilmaharats (*Lengua*-speaking):	1,000
Lengua: 11 subtribes	5,000
Angaité: 4 subtribes	2,800
Sanapaná (*Lanapsua*):	1,000
Collagá:	2,000
Total	68,000

In the deepest parts of the jungle on the upper Paraná River some hundreds of entirely savage *Guayakí* of *Guaraní* speech still roam.

Small scattered bands of *Mbayá* and *Chirapá* may still be found in the eastern part of Paraguay, sheltered by woods and rocks and living in towns of 100–120 natives each. There are also many small villages occupied by a few families. About 300 *Mbayá* inhabit several small settlements near San Juan Nepomuceno, their ancient reducción. All these tribes consider the Cacique Mayoro (the native pronunciation of "mayor," great), who resides in the mountains of Charará, as their head chief.

Bound to their permanent homes and scattered among the White population, they have a hard struggle for life. They remain in the most untrodden parts of the thicket, where they have small but well-arranged plantations, cottages, and orange groves. Increasing wants, hunger, disease, and insecurity force them to labor for the Whites.

A *Tapuí* or *Guaná* irresistibly loves his modest palm-tree ranch, his well-kept and artificially irrigated acre, and his cows and sheep, but he is ready to change his religion, his language, and even his name.

The *Macá* or *Ashluslay* (*Chulupí*) has a boundless nostalgia for the open field, for the limitless waste. For him, the wood is but a refuge, whereas a forest Indian, such as a *Chamacoco* or *Moro*, seeks shelter and food in the forest, leaving it only briefly and unwillingly.

CULTURE

SUBSISTENCE ACTIVITIES

Hunting and fishing.—The Chaco Indians hunt deer, peccaries, tapir, and some rheas. When game is scarce, they hold communal rabbit drives with fire. They hunt jaguars, pumas, otter, and coypus (nutria) for the commercial value of their skins and exploit egrets and mirasol for their feathers. They keep these birds in preserves, sparing the females and killing only males.

The boys catch fish in baskets set in the center of weirs and dams or shoot them with bows and arrows.

Collecting wild foods.—The women haul water, cut caranday cabbage with hardwood knives, and gather waterlily tubers in the swamps, wild pineapples, and cactus (*Opuntia*) fruits. In November and December, large groups of people seek wild fruits and algarroba, and prepare stores of sweet meal.

Farming.—Among some tribes, small farm plots are cleared in the wet, grassy bottom land of an extinct lake or of a valley. The Indians plant melons, watermelons, gourds, and beans. A newly opened clearing in the wood is sown with yuca and three species of maize—native, white, and yellow—which give three crops evenly spaced during the year. The Indians also plant a small but savory native potato, and a few tribes even grow tobacco. Gardens are guarded by old people who stay in a lonely hut.

Herds.—The *Chaco* tribes of the Pilcomayo and Parapití Rivers have herds of sheep, goats, and cows. They also have horses brought from Argentina. They use sheep's wool to weave the magnificent cloaks and belts which are still the pride of an *Ashluslay* (*Chulupí*), *Macá*, *Mascoi*, or *Lengua* woman. Although the natives are ceasing to use them, these textiles have come into demand in the markets of Buenos Aires and Asunción.

Recent changes.—With the advance of civilization, which brought the tanning industry to Guarany, Sastre, Casado, Pinasco, and Galileo, with the penetration of missions and army garrisons, and with the arrival of hostile troops at the outbreak of the Chaco war and a large number of cowherders after the war, *Chaco* life was considerably changed.

The whole population of the Izozog River was shifted several times. They lost all their cattle, mules, and horses and consequently suffered extreme hunger. The *Ashluslay* (*Chulupí*), who happened to live in the midst of the area of the hostilities, suffered more gravely. The *Chorotí*, numbering 2,500 souls, emigrated to Argentina until the end of the struggle. Some *Lengua*, whose villages were repeatedly visited by troops, also suffered. Many of the *Lengua* near Puerto Casado, Nanawa, and elsewhere contracted smallpox, and tribes near the frontier acquired venereal diseases.

The floods of previous years and the extraordinary dryness of 1941 caused "mal de cadera," which first destroyed the horses and then reduced the sheep. Today the Indians find it difficult to restore their earlier economy.

At the same time, deer became extinct in the south, where, during the worst part of the drought, a settler would shoot as many as 500 at a single watering-place. They now appear only singly or in pairs where formerly there were hundreds. The peccary is also being destroyed by hunters, and no kind of valuable game lives within 30 leagues of the confluence of the Paraguay and Pilcomayo Rivers.

In view of these circumstances, the leaders of every tribe tried desperately to save their kinsmen by inducing them to take up farming. Among these forward-looking men were chiefs Tofai and Mojo of the *Ashluslay* (*Chulupí*), Iskaiu of the *Macá*, Ayala and Lopez of the *Lengua*, and Santiago and Lambaré of the *Mascoi*. Nowadays various tribes cultivate enough food to provide supplies for a year. New farm methods are being adopted, and seeds and tools are required. But security of property must guarantee their progress. Many of the northern tribes—the *Chamacoco* of Bahía Negra, Voluntad, and Sastre, the *Angaité*, the *Toba*, the *Sanapaná*, and the *Lengua* in Casado and Pinasco—make a living through hard work in the quebrachales, where the *Angaité* are unrivaled as wood cutters or as ordinary workmen. From time to time, these tribes temporarily solve their problem by exploitation of wild sources of food.

Today the majority of the Indians are fully aware of the necessity of readjusting their lives. Some of the *Lengua*, *Angaité*, and *Ashluslay* (*Chulupí*) are already accustomed to farming, which they learned long ago in the missions. Several tribes of the northwest attended an excellent farm school at Station K. 40 of Casado. Three hundred *Macá* have worked in the Botanical Garden and in the neighboring schools. Every Indian cowboy knows perfectly the methods used on the ranches and tries out on a small scale every new development in planting and working. The tribes are eager to participate in the progress of the country.

Food preparation.—Indian cuisine is very similar to that called cocina criolla. When game is abundant, meat is put on inclined stakes around several fires. Roots, beans, and sometimes maize grains are toasted in the ashes. Palm cabbage is consumed raw or boiled, or else is prepared in a huge earth oven, where it is placed on live coals, protected with palm branches, and covered with earth to roast overnight. Large turtles and armadillos are cooked in the earth oven or are placed on the fire and roasted in their own shells.

When a kettle or a native pot is available, the Indians prefer to boil a bird or fish whole without even skinning it; they also boil large pieces of meat to make a thick broth. After expectionally good hunting or fishing, they smoke the game on special racks.

The hunting tribes, such as the *Chamacoco*, are rather exigent, but the poorer *Lengua* from Pinasco and Casado, who are armed only with bows and arrows, eat snakes and big lizards as well as caiman's tails. The last, which is the choicest morsel to the Indians of the monte, is scornfully rejected by the Pilcomayo River tribes.

DRESS AND ORNAMENTS

Garments.—The loincloth, skillfully woven of caraguatá leaves or made of a softened deerskin, still constitutes the sole attire of the Indians of central Chaco, as well as of the *Guayakí* of the upper Paraná River. Later on, they made it of wool. Among many tribes, however, when contact with traveling merchants brought manfactured cloth, the loincloth was replaced by a tunic which fell to the knees, or by an ornamented, woolen cloak which reached to the heels.

The women among the southern tribes—*Macá*, *Ashluslay* (*Chulupí*), *Mascoi*, *Lengua*, and *Pilagá*—are more conservative and still wear a carefully softened deer or rhea skin, which hangs from the waist to the knees and is held by a woolen belt. A few years ago this was also worn by the *Toba*, *Chorotí*, and *Mataco*.

Macá and *Ashluslay* (*Chulupí*) men use large blankets, which are dyed red, indigo, black, and sometimes yellow or green with natural colors or with aniline dyes. In winter, women wrap themselves in sheepskins. Both sexes wear deerskin moccasins.

The tribes of the monte manufacture artistic ornaments of the feathers of tropical birds arranged in distinctive color combinations and patterns.

Painting.—The *Payaguá* are said to have facial marks. All the tribes of the river plains still tattoo and paint themselves, though the *Toba* and *Lengua* are giving up the custom. After marriage, a *Macá* or *Ashluslay* (*Chulupí*) woman covers her cheeks with blue lines and rhombs. The *Macá* place similar tattoo on the chin and nose at puberty. Some blue lines may also adorn the upper part of the arm.

There are several styles of face painting. The *Macá* and *Ashluslay*

(*Chulupí*) use red geometrical designs. A *Chamacoco* girl paints her face red in the same manner, as evidence of puberty. Sometimes red paint is applied spontaneously to indicate joy and black to show sorrow. The tribes of the monte use curling lines and large spots, in a distinctive style.

Ornaments.—A lip plug (tembeta) is still in use among the *Tapieté*, who also wear long strings of small white shells. Among the *Macá* and *Ashluslay* (*Chulupí*) small beads are worn by men as necklaces and by women in strings running across the body under their naked breasts. Both sexes wear white rhea-feather leg bands.

The Indians of the river plains wear big earrings made from the cross sections of a willow stem. These are tinted purple on the inside and adorned with a metal plate and sometimes with feathers. The oblong or round whistles of palo santo are decorated in the same way. Other ornaments include rhea plumes and red, white, and blue beadwork, varied according to the age, sex, and taste of the wearer.

The Indians of the monte adorn themselves with teeth, claws, and seeds. Men cover the head with a woven feather head band or with the skin or tail of an animal. They also adorn the ears with feathers.

Hairdress.—The primitive tribes of the northern *Chaco* and the *Macá* and *Mascoi* let the hair grow long, but the last two cut it just above the forehead.

The *Chamacoco* have forelocks somewhat longer than their civilized neighbors.

MANUFACTURES

The beadwork of the tribes of the monte is masterful, and reproduces the designs used on cloaks, nets, hammocks, bags, and articles of caraguatá fiber. The *Guaná* and others of the same family are famous for their woolen hammocks and nets.

TRADE

In addition to working for wages in the tanning, wood cutting, and cattle industries, the Indians bring to the market such articles and products as the following: Skins of jaguars (with head and paws), pumas, otter, coypus, peccaries, capivaras, and deer; feathers of rheas and formerly of egrets, mirasols, and blue herons; articles made of feathers (plumeros, duvets); woven blankets and belts of every value and shape; sacks, bags, nets, and hammocks; baskets; bows, arrows, and other objects specially ornamented for sale; and kapok.

Objects they obtain in trade include: Yerba maté (about 3 kg. per person per year), tobacco, salt, matches, soap, gunpowder, 16-gage shotgun shells, double-barrel guns, axes, hatchets, hunting knives, machetes, spades, shovels, and, recently, saws and plows.

The *Chaco* Indians carry on their commerce through missionaries, traders, and settlers. They also bring their articles to Asunción, where they receive three times the usual price, e. g., 1,500 instead of 300 to 500 pesos for an onza skin.

The standard wage of a peon on the estancias of the Chaco is 300 pesos[1] a month and two handfuls of yerba and ½ kg. of locro (maize corn) a day. In the eastern Chaco, wages are a little higher.

SOCIAL AND POLITICAL ORGANIZATION

Most Chaco tribes have a class consisting of prominent men, chiefs, and most of their descendants, whose outward appearance is not distinctive, but who prevail by their high qualities and gentle demeanor and even by their speech. When this ancient nobility is exterminated or lost, the people decline; but where it preserves its influence, the whole tribe is outstanding among its neighbors.

Chiefs and subchiefs generally come from this class, although anybody may attract some followers. He whose tact and wisdom wins him most men and influence is recognized as the head chief of the whole tribe.

The policy of the Indian leader is to represent the average view of the tribesmen. He is never aggressive in offering his own opinion, but reflects the conviction of the whole group, which, in turn, attributes it to the will of the chief.

A chief's office is not hereditary. But in a majority of cases the new candidate is appointed and approved long before he is solemnly elected and proclaimed.

Some men are both civil and war chiefs. Most leaders come to power at some decisive moment and subsequently continue to enjoy prestige; consequently, there may be two chiefs in the same tribe. Chiefs now bear modern titles, such as Francisco Capitán Mayor, Sargento Tuichá, or Capitán Lari.

ETIQUETTE

A visiting stranger is given a place under the shade of some huge tree near the village. Several chiefs slowly approach to greet him in the Indian manner. The visitor says, "I have come," and they answer, "Well, you have come!" Everybody presents him food, and the chief sends women to fetch wood for a fire. Members of the host village sit before the visitor until nightfall, when he departs saying, "I am going." He is answered, "It is well; you go!"

Words of cheer and warmth always greet an old acquaintance, especially a friend who had been thought gone forever. He is received without formality; as soon as an outcry announces his arrival, everyone runs to meet him. The guest dismounts, his horse and gear are cared for, and the eldest chief and his wife, holding him by the arms, lead him in triumph to their house. Here, they start a joyous tumult that does not cease until nightfall.

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[1] 300 pesos is about $1.00 in U. S. currency.

WARFARE

In preparation for war, a Chaco Indian ties up his forelock and adorns it with beads and feathers. He pierces his tongue with a bone as a token of silence, and smears his forehead with the blood from his mouth. He paints his face black. A fast and a prohibition on smoking is imposed. Ghosts and spirits are invoked to take part in the fight, and old women perform magic for the men gone on the warpath.

The tribes of the monte go to war entirely naked, but each warrior carefully paints his body and wears a headgear, adorned with objects to represent his guardian spirit. The head chiefs wear their feathers and breast plates of palisander. The chief instructs his men how to maneuver and how to protect themselves by dodging about during the battle.

War is declared by setting war stakes near the enemy village. These stakes, which are made of palm leaves or grass, symbolize the forelock lifted up in defiance. The tribal counsel is convoked by the chief to discuss the situation. The war leader arises and says, "I am going. I will right our wrongs. I will bring you booty, prisoners, and enemy trophy heads." He departs without turning his head and other warriors immediately leave one by one, saying, "I am going too! I will slay the foes. I will bring fresh scalps." They join the leader, who halts not far from the village. They leave the children and old people at home.

A returning war party is announced by cries repeated by every mouth. When the warriors appear, the ecstatic women take from their hands the stakes to which the scalps are attached and put them in a central place with expostulations of joy and triumph. They sing, drum, and feast in an orgy which lasts until night.

LIFE CYCLE

Childbirth.—A pregnant Indian woman scrupulously observes all the customary prohibitions. She does not smoke, because it will hurt her baby, and avoids contact with her husband. The latter eats only vegetables and flesh boiled without fat. She generally delivers her baby without much pain and an hour later is walking about with her child nursing it. Other women bring her food. She eats no potage for a month, lest she die.

Girls' puberty.—After her first menstruation, a Chaco Indian girl receives special care from the whole tribe. The women dance around her all night, accompanied by rattles of deer hoofs fixed on sticks. Just before dawn, the men join the festivities, which last until the provisions and honey beverage are consumed. The young girl is subjected to certain treatment, and eats only vegetables.

Boys' initiation.—The Indians of the monte occasionally summon all the boys of the tribe and entrust them with tribal secrets, which they keep even from their own mothers. They teach the neophytes to endure pain and hunger, and instruct them in archery and other military exercises. The rite lasts about a month, ending with a mystery of Anábason in which several masked, painted, and adorned personages appear at a sacred ground. No woman dares see the spirit impersonators under pain of death.

The Indians of the river plains pierce their loins and arms with sharp deer horns to make themselves swift and with jaguar bones to make themselves strong. With their own blood, they then paint straight lines and triangles on their forearms and loins. They also puncture themselves with algarroba spines and with fish bones to bring fishing luck. They endure these mutilations with the indifference to pain that every good warrior is supposed to have. Even fathers perform these operations on their children.

Death observances.—The body of a deceased person is promptly buried in a grave hidden in the thicket. Broken bows and arrows and slain dogs and horses are placed on the burial. The widow becomes the object of general attention. She mourns and wails with other women in the lodge, so that every newcomer can hear her. Mourners blacken their faces. The lodge is later burnt, and the group moves to another place. The name of the deceased may never again be spoken.

RELIGION AND FOLKLORE

A number of religious beliefs survive in the Chaco. Some tribes mentioned a horned water monster; according to the *Mascoi*, a big horned armadillo lives under the ground, and the *Chamacoco* state that it caused the Flood. The Pilcomayo River tribes describe a large caiman, big as a kapok trunk, and a sparkling star snake which passes through the rapids of the river at night. The *Toba* and *Mataco* believe in an endless serpent resembling a huge rope, the sight of which causes disease and death, and a big anaconda of the swamps, which has a horned tail used for carrying its human or animal victims.

Spirits mentioned by the river plains tribes are: A big rhea, which protects its species; the condor, a character of many a fabulous tale; spirits of the woods, some an inch high and others as tall as the largest tree; and the whirlwind spirit, which dances amidst clouds of dust. The *Macá* tell of a female being in the monte and of spirits which dance in the grass at night and are very dangerous.

Several kinds of birds, it is believed, reveal the presence of peccaries. To some of the river plains tribes, certain birds say, "Danger! White people are near." Another bird sings, "The brethren are coming!" And the big owl says, "Beware! I am bringing spirits to harm you."

Some persons are supposed to have second sight. The renowned Tofai, head chief of the *Ashluslay* (*Chulupí*), saw the ghost of Francisco Capitán, who fell in combat with the Bolivians in 1928, as a brilliant meteor passing westward in the skies at the moment of his death.

PART 3. THE INDIANS OF EASTERN BRAZIL

EASTERN BRAZIL: AN INTRODUCTION

By ROBERT H. LOWIE

INTRODUCTION

The area covered under this head is not coextensive with the whole of the geographical territory so designated, from which the forest regions are deliberately excluded. This automatically eliminates the *Tupí-Guaraní* family, which has been sharply contrasted with neighboring groups by most investigators. In accepting this distinction as culturally warranted, it is merely necessary to remember that in the light of present knowledge we cannot dichotomize all the peoples of eastern Brazil into silvan *Tupí-Guaraní* and "*Ge*" or "*Tapuya*" of the steppes. To what extent the "*Tapuya*" of earlier writers coincide with the *Ge*, it is impossible to decide for lack of adequate linguistic data. That we have to reckon with a series of groups unrelated to either of the two major families mentioned is certain. Without any claim to exhausting the total number of linguistically separate units within the area, the following groups are here considered as "Eastern Brazilian" in the sense defined: *Ge* (*Northwestern and Central Ge*, *Southern Ge*, *Jeicó*), *Camacan*, *Guayakí*, *Bororo*, *Guató*, *Botocudo*, *Mashacalí*, *Pancararú*, *Pimenteira*, *Cariri*, *Patashó*, *Malalí*, *Guaitaca*, *Fulnio*, *Purí-Coroado*, and "*Tapuya*."[1]

To segregate all these from the *Tupí-Guaraní* is not to deny that they share traits with *Tupí* tribes; nor is it suggested that the peoples in question are culturally uniform. In point of level, the agricultural *Camacan* manifestly tower above the *Patashó* hunters. Nevertheless, they have enough in common to warrant treatment in the same major category (map 7).

Archeological results tend to complicate our picture of eastern Brazilian history. It is true that in some parts of the area, notably that of the upper Paraguay Basin, archeological and ethnographic findings neatly dovetail, e. g., the crude ceramics and the stone hammers of the mounds there closely resemble those of the modern *Guató.* But elsewhere sharp contrasts divide earlier and recent residents: The *Apinayé* make no earthenware, yet sherds crop up in their historic habitat; and in the Arraias District of the Araguaya River country fragments of pottery have turned up that cannot be connected with *Tupí* ceramics. The plausible inference is that part of eastern Brazil was once occupied by groups culturally distinct from both the *Tupí* and the nonceramic *Ge.*

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[1] The *Carajá*, a Tropical Forest tribe of the middle Araguaya River, though described in Volume 3 of the Handbook, is mentioned in this Introduction for comparative purposes because it is an enclave within the culture area of eastern Brazil.—EDITOR.

CULTURE

SUBSISTENCE ACTIVITIES

A pure hunting-gathering stage can be ascribed to only a few peoples in the area, such as the *Aweikoma*, *Botocudo*, *Patashó*, and *Bororo;* and even some of these have been credited with some agriculture. Several tribes (*Apinayé*, *Camacan*) were effective farmers. What remains true is that as a rule agriculture is less intensive than in the Tropical Forests; that manioc and maize, when raised, tend to be less important than sweet potatoes and yams; that correlatively other food-getting activities loom larger. An ethnographic curiosity is the raising by several *Ge* tribes of a species of Cissus, unknown to either Whites or *Tupí.* A crude dibble was the only implement; inadequate for steppe country, it restricted farming operations to the gallery forests.

A seasonal cycle is established in several cases. The *Timbira* roamed about, collecting wild vegetable fare and hunting during the dry season, at the close of which they returned to their villages to plant sweet potatoes, peanuts, and small-kerneled maize, which were harvested in May and June, when the tribe resumed its wanderings.

Collecting wild foods.—Gathering is very important for the simpler tribes. For the *Botocudo* the dry season was one of plenty in Saint-Hilaire's day, because they then had plenty of sapucaia fruits. Even incipient farmers, like the *Northern Ge*, relied largely on the babassú and other wild-palm fruits and fought for the possession of stands of these trees. Honey, characteristically stored in skin bags, must also be reckoned under the head of gathered food material. Various tribes did not disdain even toads and lizards (*Botocudo*), and Saint-Hilaire found the *Malalí* cooking worms that live in a bamboo, both for the flavor and the marvelous visions they produced.

Hunting.—Hunting also varies in importance, completely overshadowing fishing among the *Timbira.* As a rule, the animals pursued include much of the fauna, but occasionally one meets whimsical taboos: the *Bororo* refrain from shooting deer. In addition to the

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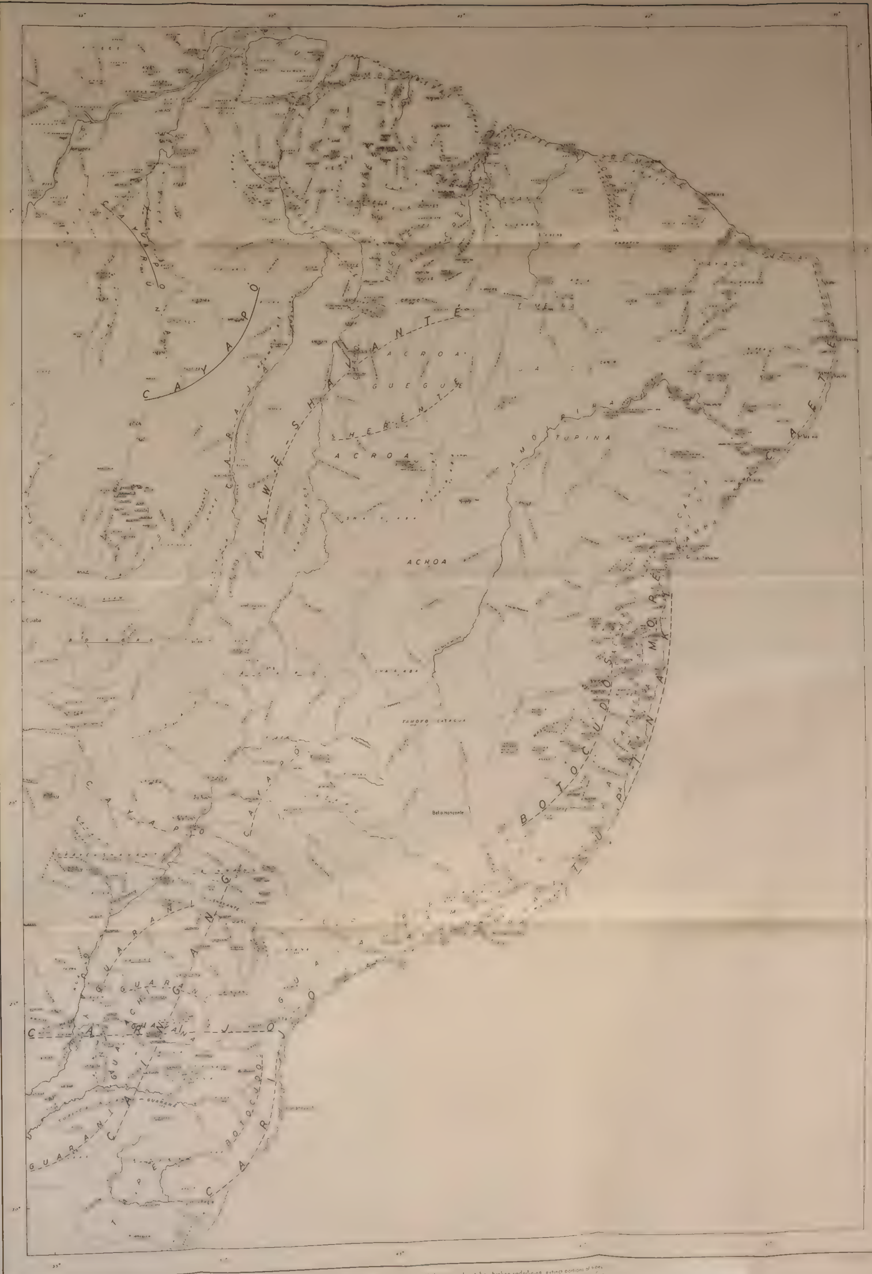
CAYAPÓ
AKWẼ SHAVANTE
SHERENTE
ACROA
GUEGUE
ACROA
ACHOA
TUPINA
TUPINAMBÁ
BOTOCUDOS
GUARANÍ
KAINGANG
CARIJÓ
BOTOCUDO
CAYAPÓ
Cuiaba
Belo Horizonte

MAP 1.—The tribes of eastern Brazil. Solid underlining, modern tribes; broken underlining, extinct portions of tribes otherwise; date of location is given under the tribal name. Tribes not underlined are extinct. (Compiled by Curt Nimuendajú.)

individual chase, some tribes (*Timbira*) practiced communal hunting with grass fires.

In pre-Columbian hunting, dogs were probably unknown; the *Caingang* still lacked the species as late as 1912.

Fishing.—The importance of fishing varied, largely with geographical conditions. The *Aweikoma* are reported not to have taken fish at all, and for the *Timbira* fishing is of minor importance. The general method of taking fish is by shooting them with bow and arrow; hooks were originally unknown; drugging occurs, but seems to be less important than in the Amazon-Orinoco area.

Food preparation.—Cooking methods depend partly on the presence of earthenware, which facilitates boiling, though pottery does not always imply this process, the *Mashacalí* preferring to broil meat on a spit and to steam vegetable fare by covering the mouth of the pot with leaves and placing a clay bowl on top of them. The *Northwestern Ge* and their kin mainly bake food in earth ovens, including meat, which typically figures in the form of pies; as a minor technique, they practiced stone-boiling in preparing the bacaba fruit. A bamboo section may serve for cooking as well as for holding water (*Botocudo*).

Bitter manioc, where used, is freed of its poison in simpler fashion than by the forest peoples. It should be recalled that eastern Brazilians lean more heavily on the sweet potato (*Northern Ge*, *Mashacalí*).

HOUSES AND VILLAGES

Settlement largely hinges on geographical conditions; the proximity of water and of gallery forests is vital to the *Northern Ge*. Seasonal shifts may be due either to the threat of inundation (*Carajá*) or to the general economic organization; Ribeiro pictures the *Timbira* as roving hunters and gatherers during the dry season and as repairing to their villages in the rainy season to plant their plots.

The arrangement of houses varied considerably. A circular or horseshoe periphery is typical of the *Bororo* and the *Northwestern* and the *Central Ge*, with the central area reserved for councils, ceremonial activities, or sometimes, the bachelors' hall or men's club. An abandoned *Patashó* site revealed 15 huts round an open space in the woods, with one tree left intact in the clearing. Some tribes (e. g., the *Malalí*) lacked any definite arrangement.

As to the house itself, the notorious rapidity with which natives have imitated the Neo-Brazilian rancho casts suspicion on the aboriginal character of rectangular huts. However, the primitive *Guató* dwelling has an oblong plan, consisting of a gable roof set on the ground, an effect similar to that of the somewhat arched *Carajá* house. Palm-thatched forms, more or less round, are usually widespread. The modern *Timbira* still use beehive-shaped and conical types in ceremonial or in temporary camps; their *Shavante* equivalents—round huts built of palm leaves—have been expressly described as waterproof and as inhabited during the rainy season by the same author, Pohl, who notes the relevant inadequacy of the hemispherical, palm-thatched *Porecamecra* dwelling. The *Cariri* are said to have built clay huts; and in a *Shavante* settlement Pohl saw 30 thatch-roofed clay dwellings in a row.

One of the outstanding negative traits of the area is the lack of true hammocks for sleeping, which seems restricted to the *Cariri* and a few other groups. The *Carajá* analogue is similar in make, but serves only as a cape in the daytime or as a mattress on the ground; the *Mashacalí* merely sit on hammocks in the daytime; and other occurrences are reasonably explained as recent loans. The typical eastern Brazilian contrivance for sleeping is a platform bed. Where that is lacking, we are likely to find the natives sleeping merely on mats (*Guató*) or on bast (*Botocudo*).

DRESS AND ORNAMENTS

Most of the tribes originally went virtually or wholly naked. The penis sheath was widespread (*Bororo*, *Cayapó*, *Camacan*, *Tapuya*), as was the tying of a thread round the prepuce (*Tapuya*, *Patashó*); and some groups tucked the glans under a belt so as to hold the penis vertically against the abdomen (*Botocudo*, *Mashacalí*).

The profusion of ornament strongly contrasts with the tendency to go nude. Conspicuous over a large part of the area are earplugs, sometimes of huge size, and labrets for the lower lip. These, like certain other articles, sometimes serve as emblems of status. Tribal differences appear, the *Porecamecra Timbira* perforating only the ears, not the lips; the *Mashacalí* neither or reserving the practice for males. Tattoo is limited.

Genipa and urucú are general, and for ceremonials the down of birds is often glued on the performer's body.

Many tribes practice a distinctive haircut. Thus, the *Eastern Timbira* leave a definite furrow in the back of the head.

The simple *Macuni* comb—a thin rod pointed at one end with a narrow spatula at the other—contrasts with the *Carajá* equivalent, which consists of a series of sharp converging wooden splinters held together by two pairs of parallel cross-sticks and an interwoven ornamental basketry fabric of cotton with an occasional addition of feathered tassels suspended from the upper edges. Live embers (*Cayapó*) took the place of scissors in cutting hair.

TRANSPORTATION

By and large, the eastern Brazilians differ from the *Tupí* and the forest Indians in being without canoes. Although this is not universally so, it was originally true of most of the *Ge*, the *Botocudo*, and the *Bororo*. In probable imitation of the canoe-using *Carajá*, the *Apinayé* also traveled about in boats while residing on the Tocantins River. The *Suyá*, however, have only bark boats, and the *Shavante* cross streams on rafts of burití leaf stalks.

The *Eastern Timbira* impressed Pohl (1832–37) with their skill in swimming and treading water. Early explorers record the same observation among the *Tarairiu.*

Simple footbridges of a pair of lianas, the upper forming the handrail, are reported for the *Botocudo.*

Burdens are commonly borne on the back by means of a forehead band, but in this respect there may be sex differences. A *Mashacalí* man, e. g., slings small bags from his shoulders and carries a larger one on the back by a shoulder strap, whereas his wife supports a corresponding load by a tumpline.

Infants generally straddle the mother's hip. A *Botocudo* child rests on the mother's back in a bast sling supported by a tumpline and puts his hands round the woman's neck. Among the *Mashacalí* he straddles the left hip, sitting in a sling that passes over the mother's right shoulder; or he may sit on her back with the sling crossing her forehead.

MANUFACTURES

Textiles.—True loomwork is very rare and of a simple order when it occurs (*Camacan*, *Guató*). The *Guató* frame consists of two posts with the warp wound between them; the threads are dyed in the decoctions of the bark or wood of certain species of trees; the techniques are varieties of twining; and the finished articles include cloth, mosquito netting, mats, and fly whisks.

The threads may be cotton (*Guató*, *Bororo*, *Timbira*) or human hair (*Bororo*), burití palm, or other plant fibers (*Guató*, *Timbira*). The *Caingang* and *Botocudo*, as well as probably the *Mashacalí*, grew no cotton. In the absence of this material and of spindles the thread was twisted on the thigh, a process also followed for plant fibers by tribes using a spindle for cotton.

Basketry and netting.—Basketry, though widespread, is not universal in the area, for the *Mashacalí* were originally unfamiliar with the craft, relevant specimens from them being of recent origin. On the other hand, the industry flourishes among the *Guató*, whose acuri palms furnish excellent material for checkerwork and twilling. The *Northern Ge* have not only twilling, but also coiling, a technique unknown to the *Tupí.*

Basketry is not a distinctively feminine craft in South America. Possibly restricted to women by the *Bororo*, it devolves mostly on the *Timbira* men.

In compensation for the absence of plaiting, the *Mashacalí* are skillful at the netting technique. Their women scrape off the bark of a Cecropia species, twist the fiber on their thighs, and use this thread for the manufacture of netted bags, in which most of their belongings are stored.

Featherwork.—With other South Americans, the eastern Brazilians share extensive decorative use of plumage. Though Martius (1867) denies the art to the *Gwaitacá*, even one of the Saint-Hilaire's (1830–51) *Botocudo* wore a diadem of radiating yellow feathers attached with the aid of wax. Creditable featherwork appears among the *Timbira* and *Central Ge.*

Stonework.—Stonework was rapidly eliminated by the introduction of iron tools and in part is unnecessary, the place of scrapers and knives being taken by shells, bamboo splinters, and rodent or piranha teeth. However, stone axes figure in the old *Carajá* petroglyphs and have been observed by many travelers in the area. They were not only used for adzing, chopping, and warfare, but also as chief's badges (*Macamecra*). An anchor-shaped type merits attention.

Pottery.—Pottery was indeed lacking among most of the *Ge* and the *Patashó*, but by no means universally, plain ware even turning up among the *Bororo.* Further, sherds found by Kissenberth (1911) in the Araguaya River region and reported by Nimuendajú from *Apinayé* territory establish the pristine spread of pottery over tracts where it no longer occurred in the historic period. Finally, this ancient eastern Brazilian type closely corresponds to ware recently observed in the São Francisco River country. Fragments of large spherical vessels found by Nimuendajú near the *Camacan* habitat were without base or separately wrought rim. The lower half, or more, had been molded from a lump of clay and was plain; the rest had been built up of clay coils superimposed on one another so as to suggest fish scales or roof tiles. There was neither painted nor plastic decoration, and, except for a single comb-shaped stub below the rim of one pot, there was no indication of a handle. This residual lug specifically suggests the ceramics of Indians on the lower São Francisco River; and altogether the technique coincides with that observed by Carlos Estevão (1938) and Nimuendajú in the State of Pernambuco. Moreover, in 1938 Nimuendajú saw a surviving *Camurú* (*Cariri* family) still making pottery that corresponded in shape and technique to ware he had noted among the *Shucurú* of Cimbres, Pernambuco.

This investigator also describes *Mashacalí* pottery. The bowls and cooking vessels are unpainted. The potter kneads her unmixed clay with a pestle, molds the walls from a lump between the fingers of both hands, forming only the upper margin from coils, which are laid on so as merely to suggest a distinct rim. She smooths the walls with a snail shell, the rim with some moist deerskin. Two little notched projections diametrically opposite to each other indicate vestigial lugs. The cooking pots are ellipsoid and without a true base. They are covered with open dishes, which also serve as food bowls. There are also elliptical drinking bowls.

Guató pottery is coiled, smoothed with a shell, and baked for 10 minutes in an open fire. The usually rounded ware had pointed bottoms. Decoration was restricted to rudimentary fingernail prints and small lugs.

Eastern Brazilian pottery thus distinctly differs from either *Tupí* or *Arawak* ware.

Weapons.—The most usual weapon is the bow, which often is of extraordinary length—in individual specimens well over 8 feet (2.4 m.). The *Mashacalí* type, however, is small and further differs in having a characteristic groove. Arrows, too, are frequently very long, and their structure varies for special purposes even in one tribe. A lancet-shaped bamboo point for big game, blunt heads for birds, barbed wooden points for jaguars, and hunting arrows with bone heads are among the types found. Arrows are usually two-feathered; the eastern Brazilian method of bridge and tangential feathering is authenticated for the *Tapuya*, *Canella*, *Shavante*, *Cayapó*, *Caingang*, and *Botocudo*. Poisoned arrows occur (*Carajá*, various "*Tapuya*").

Some of the *Tapuya* of the early 17th century—in contrast to the *Cariri*—were described as without bows, relying instead on a grooved atlatl. But shortly thereafter the bow and arrow were found among them also.

The spear or lance is also an important weapon; the head is usually of bone or serrated wood.

Fire making.—The fire drill is universal. Sometimes it consists of a simple shaft (*Botocudo*, *Cayapó*), sometimes the actual drill is inserted into the shaft of an arrow, superseding its head (*Botocudo*, *Mashacalí*). Fans for the fire are either of feathers or basketwork.

SOCIAL AND POLITICAL ORGANIZATION

Government.—In general there is extreme separatism, as attested by the endless historic feuds of different *Botocudo* hordes. Saint-Hilaire (1830) found that each of these bands claimed a definite territory, which was guarded by sentries at the border. The animosity between distinct groups of *Northern Cayapó* persists to the present day. Occasionally solidarity is found over a somewhat greater range of individuals: the *Guató* once held semiannual tribal assemblies, though otherwise each subtribe had its own council; and among the *Sherente* a conclave of the chiefs of all the villages fills a vacancy in any one settlement and deposes a miscreant colleague.

The chief is generally without coercive power, yet may exert great authority, as among the *Botocudo*, where supernatural power is a prerequisite to office. The functions include peacemaking, the preservation of order, the welcoming of guests, and the maintenance of ancient ceremonial and social usage. In some tribes (*Timbira*, *Sherente*), the chief took the initiative against sorcerers. A 17th-century headman of the *Tapuya* would order a crier to announce the plans for the day—whither the people should travel, where they were to pitch, and when they were to break camp (Barlaeus, 1659, p. 695). The *Bororo* simultaneously have two chiefs; the *Canella* even more.

In his official capacity the chief is generally aided by a council of elders that at the same time checks any tendency to overassertiveness. Among the *Canella* the collective senate of chiefs and elders controls communal life and is entitled to special respect and gifts, such as are likewise credited to the *Tapuya* "king." The *Cayapó* and *Botocudo* chiefs summon the elders for a council with trumpets made of armadillo skin, for which the *Ge* substitute gourd trumpets.

Succession may or may not follow the rule of descent; it is nepotic among the matrilineal *Bororo*, but a vacancy is filled by the chiefs and councilors among the equally matrilineal *Timbira*. The patrilineal *Sherente* and *Caingang* have at least a tendency to filial succession, but this is also favored by the *Guató*, who have no demonstrable clan system.

Prestige.—Definite castes are absent, but clans or moieties in some tribes (*Bororo*, *Caingang*, *Sherente*) may enjoy differential status. With the *Canella* certain social and ceremonial positions are honorific. Individual gifts are also recognized; the *Guató* and *Bororo* esteemed jaguar-killers, and honor was shown by the *Tapuya* to good wrestlers, fighters, and hunters.

Moieties and clans.—The *Canella*, *Apinayé*, *Bororo*, and at least some of the *Northern Cayapó* have matrilineal, the *Sherente* and *Caingang* patrilineal moieties; except among the *Apinayé*, these units are exogamous. In addition, the *Bororo* have a secondary dichotomy leading to an "Upper" and a "Lower" half of the village, and the *Canella* have three moiety groupings that are not connected with marriage. One of these *Canella* dichotomies splits the entire universe into two categories, a notion that is shared by the *Caingang*, with reference to their exogamous moieties. Spatial allocation of the moieties to opposite cardinal directions appears, the *Canella* and *Cayapó* assigning their moieties to the east and west, the *Apinayé*, *Bororo*, and *Sherente* to the north and south, respectively. Among the *Apinayé* and *Sherente* the moieties are further linked with the sun and moon, respectively.

The *Timbira* moieties are undivided; those of the *Sherente* and *Bororo* have clans, each localized in a definite part of the circumference assigned to the moiety as a whole. The *Bororo* clans commonly bear animal and plant names, but their claim to full-fledged totemism is disputed.

Marriage.—True purchase is probably absent. But in matrilocal tribes the wife's family profits from her husband's labors, and elsewhere gifts are in vogue, as in the offering of game and honey to a father-in-law by *Tapuya* bridegrooms in the 17th century.

The *Timbira* and *Bororo* are matrilocal, the *Sherente* patrilocal, and the *Cayapó* pass from incipient patrilocal to matrilocal residence. Among the *Guató* a married son sets up an establishment of his own. The *Caingang* had no fixed rule of residence. Houses and fields always belong to the *Timbira* and *Cayapó* wife and to the *Sherente* husband. A *Canella* or *Cayapó* husband continues to maintain close relations with his maternal home; similarly, a *Carajá* eats with his married sister's, rather than with his wife's, household and receives his share of game in the sister's house.

Strict monogamy is reported for the *Timbira*, *Pau d'Arco*, *Cayapó*, *Shavante*, and *Caingang*. It is prevalent among the *Carayá* and *Botocudo*, but distinguished men could have more than one wife. The 17th-century *Tapuya*, like the recent *Guató*, were polygynous; the *Sherente*, *Botocudo*, and *Mashacalí* permit sororal polygyny; and a case of nonsororal polygyny is on record for the *Botocudo*. The levirate occurs (*Sherente*, *Botocudo*, *Mashacalí*), but both it and the sororate are unknown to the *Canella* and *Pau d'Arco*, whereas the *Apinayé* and *Sherente* permit the sororate. Sororal bigamy and stepdaughter marriage flourish among the *Bororo*.

Cousin marriage is explicitly denied for the *Botocudo*. The *Mashacalí* consider cross-cousin marriage orthodox, whereas the *Sherente* restrict it to the paternal aunt's daughter, but favor unions with more remote matrilineal kinswomen, such as the maternal uncle's daughter's daughter.

Among the *Timbira* and *Sherente* there appears a class of "wantons" who are in no sense outcasts, but freely enter sex relations without the formality of marriage.

Kinship and kinship terminology.—The avunculate is prominent among the matrilineal *Timbira*, but also among the *Sherente*. The paternal aunt is very close to a *Canella* girl. Adult brothers and sisters avoid each other among the *Sherente* and *Apinayé*. The *Timbira* permit familiarity between a man and his wife's sister, but not with his brother's wife.

The parent-in-law avoidance is unknown to the *Botocudo*, but occurs at least initially among the *Sherente* and *Apinayé*.

Artificial ceremonial relationships develop among the *Apinayé* and *Cayapó;* and unrelated *Canella* establish relations of respect and license, respectively, either through acquisition of certain names or by special acts.

Kinship nomenclatures are too little known for a broad comparative statement. A few details, however, are noteworthy. The *Bororo* stress relative seniority within one generation; the *Canella* have classificatory extensions with some *Crow* features; the *Botocudo* have teknonymy and some tendency toward a generation system; and the *Guató* separate maternal from paternal aunts.

Associational units.—The *Sherente* segregate youths in a special hut after their reception of a girdle emblematic of their status; in their centrally situated bachelors' hall the inmates are grouped by moiety and associational ties and are subdivided into six age grades. Chastity is imperative, on pain of expulsion, and only members of the highest grade are allowed to seek a wife. *Canella* and *Apinayé* youths also sleep in the center of the settlement, but in the open air. In both tribes a boy has to pass through elaborate initiation rituals prior to marriage.

The *Bororo* and *Northern Cayapó* have a men's club rather than a bachelors' hall. The *Górotire* and *Pau d'Arco Cayapó* divided all males into age grades which also represent ceremonial units; there is a lesser number of female grades. For either sex, advancement hinges on parenthood rather than on matrimony. A virtual men's tribal society with esoteric masquerading splits *Carajá* society into a male and a female half, and a corresponding cult with bull-roarers characterizes the *Mashacalí*. On the other hand, the four *Sherente* men's societies remain on the profane level; here there is an unimportant women's organization.

By way of contrast, the *Timbira* display rather free association of both sexes in ceremonial and social activities; the festive societies of the *Canella*, e. g., have girl auxiliaries. Entrance into these associations automatically follows the acquisition of certain names, except that Clowns become such solely because of native gifts for farce.

Etiquette.—Apart from the stringent rules connected with the proper performance of ritual, several categories of fact merit special attention under this head.

The weeping salutation has been noted for the *Botocudo*, *Timbira*, *Tapuya*, and *Guató*.

In some tribes eating is subject to a definite etiquette: a *Carajá* eats by himself and turns away from his companions lest he excite their ridicule.

Notwithstanding the usually clear-cut division of labor and of ceremonial functions, the sexes are rigidly separated only where there is a definite men's club (*Bororo*) or tribal society (*Mashacalí*). Elsewhere, as among the *Timbira*, young women and men are found regularly joining in the daily dances, and the men's organizations have female associates.

WARFARE

The weapons partly coincide with those used in the chase, but naturally there are modifications and additions. The *Caingang* use a javelin, the *Aweikoma* a thrusting-spear over and above the bows and arrows common to both. In contrast to other *Ge*, the *Acroá* are said to have used poisoned arrows, which are also recorded for the *Botocudo* and various *Tapuya;* incendiary arrows are known from the *Shavante* and *Timbira.* The *Botocudo* have no special warclubs, such as are known from any of the *Ge.* Stone anchor-axes with short hafts slung over the shoulder are typical of various *Ge*, their possible congeners, the 17th-century *Otshucayana*, and the enigmatic *Tremembé.* Small specimens serve in ceremonials and as chief's emblems.

Many of the eastern Brazilian groups were conspicuously martial, holding their own tenaciously against the White intruders. The motive for warfare was mainly the desire for revenge. Adult male enemies were usually slain rather than captured by the *Sherente* and *Cayapó.* As for tactics, the *Sherente* would begin a skirmish by discharging their arrows, following this up by a charge with clubs and lances. *Cayapó* women are reported to have accompanied their husbands, supplying them with arrows according to requirements. Special military contrivances of the *Botocudo* included caltrops (Knoche, 1913, fig. 2).

The *Cayapó* slayer of an enemy was obliged to go into a fortnight's retreat. The *Apinayé*, *Canella*, *Northern Cayapó*, *Akwẽ*, and *Caingang* killer all deposited a club by the side of a slain foeman.

Cannibalism has often been imputed to eastern Brazilians, but with much exaggeration. It certainly did not approach the systematic anthropophagy of the *Tupí.* The *Timbira* and *Akwẽ* did not eat human flesh at all; the *Botocudo* probably indulged in the practice only occasionally and sparingly. The endocannibalism of 17th-century *Tapuya* as displayed in their mortuary rites obviously falls under a different category.

LIFE CYCLE

In part, this topic has been foreshadowed. A composite picture for the area would recognize prenatal and postnatal taboos observed by parents in the child's interest; rites for the perforation of ear lobes and the lower lip; name-giving rites, distinctive games for boys and girls; menstrual rules; the acquisition of distinct emblems of adult status; marriage; parenthood; and death. Only a few summary remarks are possible here.

The couvade is prominent, extending for the *Canella* to all men who have had congress with the child's mother during her pregnancy. Personal names are extremely important: the *Bororo*, though possessing a profusion of changeable nicknames, keep their primary names for good and regard them as secret. The *Timbira* and *Sherente* solemnly bestow new names, which may qualify for certain ceremonial obligations. Sometimes basic social units own and confer personal names (*Sherente*).

Menstruation in some tribes involves taboos, including the use of a scratching stick instead of the fingers, but this rule extends to other critical situations, such as mourning or retiring after the killing of an enemy (*Canella*).

Interment is the general mode of disposing of a corpse. The *Botocudo* hastily leave the burial and the locality. The *Mashacalí* place the body in the grave in a squatting position and break the dead person's weapons or pottery. Some peoples take care to prevent direct contact of the body with the earth (*Timbira*, *Cayapó*, *Sherente*). Elaborate mortuary festivals distinguish the *Bororo* and *Caingang*.

Secondary burial is lacking among the *Botocudo* and the *Mashacalí*, but prevails among the *Timbira*, *Sherente*, and *Bororo*. The *Tapuya* of the 17th century had their priests dissect a corpse, which was then cooked and consumed. The bones, however, were carefully preserved for a subsequent solemnity, when they were pulverized, mixed with water, and drunk.

ESTHETIC AND RECREATIONAL ACTIVITIES

Games.—Sport plays a large part among the eastern Brazilians; it is apparently indulged in for sheer enjoyment since there is no evidence of gambling. Relay races with heavy logs are typical of the *Timbira*, *Sherente*, and *Camacan;* they are also credited to the *Fulnio*, the 17th-century *Otshucayana*, and the natives of ancient Itatin, i. e., either *Southern Cayapó* or *Guaraní.* This form of exercise was unknown to the *Caingang;* the *Northern Cayapó* seem to have manipulated heavy logs at dances. There is no evidence that log races are a test of fitness for matrimony—a popular fallacy refuted by the personnel of the competitors in the best-known tribes.

Wrestling appears as the favorite sport of the *Tapuya*, stilt-walking is especially characteristic of the *Apinayé*, hockey and tug of war figure among the *Northern Cayapó*, and the unique occurrence of a hoop-and-pole game among the *Sherente* is noteworthy. The *Apinayé* and *Sherente* play ceremonial games with rubber balls, and shuttlecocks made of maize husks are struck with the palm of the hand by the *Mashacalí.*

Cat's cradle figures are known from the *Mashacalí.*

Children's toys include buzzes and tops.

Music.—Drums do not occur, but there are trumpets, rattles, and whistles. At dances, *Mashacalí* men strike the ground with bamboo tubes 40 inches (101.6 cm.) long, instruments differing from the tribal water containers only in being ornamented with animal forms in pokerwork and in being provided with a hook-shaped grip. The non-shamanistic use of gourd rattles by the *Timbira*, *Sherente*, and *Northern Cayapó* is noteworthy; the *Caingang* singers shake them during the mortuary solemnities. Bull-roarers were sacred among the *Bororo*, but not among the recent *Canella.*

Dances.—These are so important for the *Canella* that a village site is chosen with regard to its suitability for dancing, the young men and women performing three times daily during the dry season. Both sexes also participate in the Parrot ceremony of the *Mashacalí*, witnessed by Nimuendajú: A dozen men formed two lines in front of the men's house and sang many songs, rocking their bodies from one foot to the other; they were soon faced by seven women, who placed their arms on one another's shoulders, bent forward, sang, and hopped sidewise round the men. The case is noteworthy because these people bar women from cult activities.

Stimulants.—Tobacco was probably not originally raised by the majority of eastern Brazilians. The *Botocudo* learned smoking from Whites and, though avid of the weed, had not yet come to plant it in Manizer's (1919) day. The *Timbira* do not raise it, even though the *Apinayé* are passionately addicted to smoking funnels of spirally rolled palm leaflets. The *Shavante* of Pohl's day did not use tobacco at all.

Spirituous liquors have a limited distribution, being unknown to many *Ge* tribes. But the *Camacan* women ferment manioc juice for a spree while their husbands hunt the requisite game; and the *Guató* befuddle themselves with wine from the sap of the acuri palm.

Ceremonial.—Much of eastern Brazilian ceremonial must be viewed as esthetic and recreational rather than religious. This applies preponderantly to the festivals of the *Timbira*, including their wholly profane mummers' performances. The Great Anteater masquerades of the *Apinayé*, *Sherente*, and *Northern Cayapó*, in which a pair of the species is represented by the actors, are also devoid of sanctity. The elaborate initiation and other major ceremonies of the *Canella* involve only a few religious and magical elements, the stress being on the performance as such—the organization and decoration of the actors, dramatic conflicts between rival societies, farcical antics of clowns, and competitive sports. (For religious ceremonial, see p. 396.)

SUPERNATURALISM

Magic, animism, shamanism, and celestial cults are probably found throughout, but with great variation in emphasis.

Magic.—Sympathetic magic occurs, as when a *Canella* invests urucú with marvelous potency for assuring luck or renders a youth tough by bringing him into contact with the tree symbolic of resistance. Throwing a disguise into a creek allegedly lengthens the former *Sherente* wearer's life. On the other hand, contagious magic of the classical type, e. g., by destroying clipped hair, is certainly absent among the *Timbira* and *Northern Cayapó* and undemonstrated elsewhere.

The dietary and other restrictions incident to birth, menstruation, and other critical periods have been referred to (p. 392). Bird omens were stressed by the *Tapuya.*

Animism.—Under this head may be distinguished worship of the dead and of spirits who have never led a human existence.

The *Caingang*, whose ceremonial centers in mortuary rites, are said to lack any vital beliefs in other spirits. The *Bororo* have both systems of beliefs, with distinct intermediaries for the two categories of supernatural beings. The *Canella* directly appeal to deceased kinsmen in times of stress, but the *Northern Cayapó* have no such practice, and most of the *Apinayé* avoid it. The *Botocudo*, though recognizing several types of soul, worship none of them and have no particular fear of the spooks supposed to arise from a corpse's skeleton, whom a doughty male will thrash if they give annoyance. Here animism takes the form of reverence for a never human, though anthropomorphic, race of sky-dwellers, the marét, who are invisible to the majority of mortals, but reveal themselves to a favored few, who become wonder-workers and curers. On special occasions a shaman chants by a sacred effigy-pillar, thereby invoking the spirits, who descend the post and, invisible to all but the medicine man, watch the proceedings. A generally benevolent chief of these beings is supplicated for aid on behalf of their protégés by his subjects. He grows angry over abuse of the *Botocudo* and causes rain and storms. The origin of certain songs, as well as the use of earplugs and labrets, is credited to him.

Among the *Mashacalí* there is not only communion with the dead in dreams, but there exists also a men's tribal society whose members impersonate the deceased in disguises and simulate spirit voices by whistling and swinging bull-roarers. All boys are admitted and pledged to secrecy on pain of chastisement. The masquerading performance alternates seasonally with ceremonials round a decorated sacred pillar in the center of the village by which the spirits supposedly descend to watch the human dancers.

The *Camacan* also believe in the descent of the souls of the dead to attend a carousal ceremony, unseen except by the elders. Women and young children are not permitted to view them. Evidently the *Camacan* and *Mashacalí* beliefs are closely related, and, notwithstanding the distinctive character of the *Botocudo* spirits, the cult of all three tribes has genetically related elements. Less significant is the association of spirits with whistling by the *Mashacalí*, the *Camacan*, and the *Fulnio*.

As for the fate of the soul after death, the *Tapuya* drew the familiar distinction between those who had and those who had not died a natural death; apparently, it was the former that were favored by being ferried to a land of honey and good fish. According to the *Botocudo*, a person's main soul dies before his body, the subsidiary souls go to the sky never to return. The *Bororo* believe that the spirits of the dead join the twin culture heroes.

Disease and Shamanism.—Eastern Brazilians have a number of profane therapeutic devices, such as scarification to prevent fatigue (*Tapuya*); massaging, flogging, and sweating the patient with the aid of hot rocks (*Botocudo*); and bleeding with a blocked arrow shot at the forehead (*Cayapó*, *Botocudo*). However, the cause of illness being commonly ascribed to sorcery (*Tapuya*), or other weird agencies, disease is usually treated by supernatural means, which usually involves recourse to medicine men.

However, the role of the shaman varied greatly. He is said to be nonexistent among the *Caingang;* and among the *Canella*, where any layman can go into seclusion and directly appeal to his deceased kin for aid in illness, the medicine man's position is naturally reduced. On the other hand, the two classes of *Bororo* shaman obviously loom large in tribal society. This is true of the *Sherente*, whose doctors derive their gifts from astral patrons, and of the *Northern Cayapó*, who distinguished ordinary practitioners from great curers communing with jaguars and able to revive the dead. The wonder-workers of the *Botocudo* as protégés of the marét also come under this head, especially when they unite political with supernatural power. *Tapuya* "priests" consulted the spirits in the woods when asked for advice on public affairs and returned with an impersonator of some supernatural being, who delivered a prophecy.

The intrusion of a pathogenic agent is possibly the most common source of illness, appearing among the *Northern Cayapó* and *Apinayé* in the special form of the intrusive soul of an animal or plant. Both of these tribes, as well as *Sherente*, recognize soul-loss as a cause of disease; and there is a widespread fear of sorcerers, who are mercilessly killed by the *Cariri*, *Timbira*, *Sherente*, and *Cayapó.*

The methods of treatment include smoking and suction. A 17th-century *Tapuya* "king" would blow smoke on sick boys and was himself cured by doctors who extracted an awl, a rock, and a root from the afflicted parts (Barlaeus, 1659). The smoking of tobacco blown on the patient, chants, and the strewing of ashes round the bed to expel the "demon" are recorded for the same period among the *Cariri.* Certain *Sherente* doctors treat patients at a distance of 6 feet (1.8 m.) by means of a magical wand.

Possession is demonstrated for *Bororo* shamans; elsewhere the notion seems to be absent or rudimentary, as when souls of the dead are supposed to take temporary lodgement in the novices at initiation (*Canella*).

In this area the gourd rattle may figure in ceremonials, but is typically not associated with the shaman.

Ecstatic visions were induced among the *Camurú Cariri* by drinking "yurema," which evoked glorious sights of the spirit land, of the clashing rocks that destroyed souls traveling thither, and of the Thunderbird producing his peals and shooting lightning from his crest.

Possibly the *Malalí* custom of eating certain bamboo worms and thereby producing marvelous dreams with beautiful visual and exquisite gustatory sensations is psychologically related.

Celestial cults and major Gods.—For several tribes, Sun and Moon are not only mythological characters, but true deities, the Sun usually claiming precedence. Both sometimes appear directly to *Apinayé* votaries, and are addressed for rain and good crops by the *Canella*, who expect no theophany. To the *Sherente*, Sun and Moon do not appear either, but they send their distinctive astral deputies according to the solar or lunar affiliation of the visionary's moiety. The *Tapuya* worshiped the "Northern constellation," celebrating it with chants and "leaping," and at a special festival with athletic contests and dancing. According to their mythology, life had been easy for the Indians until Fox caused them to fall into this deity's bad graces, whence their subsequent need to worry about food.

The *Cariri* are supposed to have had a trio of gods, the "Father" being also represented as having two sons who quarreled (Bernardo de Nantes, 1896). According to another source, God (Touppart) sent a friend to the Indians who was called their Grandfather; after a while Grandfather retired to the sky and sent them Badze (Tobacco) to be worshiped through offerings.

Ceremonial.—The preponderantly profane nature of much of eastern Brazilian ceremonial has been pointed out (p. 394); on the other hand, certain phases of religious ritual have been necessarily discussed under other headings. The elementary rites of prayer, offerings, dramatization, and self-mortification are probably general. Certain cryptic forms figure in early sources, such as "confession in the woods" by the *Cariri.* There is likewise the clubbing of a kneeling person by the *Cayapó* chief till the blood flows from his forehead and is wiped off by attending women—a rite that reappears in the obsequies on behalf of a distinguished man, whose corpse is smeared with the blood. The *Tapuya* "king" owned a sacred flask or case, containing several holy rocks and fruits. This could not be touched without his consent, but was consulted before serious undertakings after tobacco smoke was blown upon it (Barlaeus, 1659). Among these people priestly consecration was also deemed necessary to prosper the fields. The *Timbira* favored a retreat with ceremonial taboos in periods of crisis, such as birth or mourning. Arrows are shot at the sky during an eclipse by several tribes (*Cayapó*, *Bororo*).

Major festivals are usually highly composite. Mortuary rituals are elaborate among the *Bororo* and *Caingang*, whereas the boys' initiation is stressed by the *Apinayé*, *Canella*, *Aweikoma*, and in the special form connected with an animistic cult and a tribal society by the *Mashacalí.* Name giving is a common occasion for solemnities, but often without manifest religious connotation. Performances are sometimes definitely linked with social units (*Timbira*, *Caingang*).

MYTHOLOGY

A Sun and Moon cycle, with Moon as the less intelligent member of the pair who is teased by his companion, spoils things by foolish chatter, gets killed as a result of his stupidity, and has to be revived by Sun, is important in *Timbira*, *Sherente*, and *Camacan* mythology and at least adumbrated among the *Mashacalí.* Both are generally male, but frequently comrades rather than brothers. The *Bororo*, however, though also telling tales about Sun and Moon, have for their principal mythical heroes genuine twin brothers unconnected with the heavens, but appearing as hosts of the dead, as inventors, transformers, and slayers of monsters.

Significantly distributed in eastern Brazil are a number of motifs of which the following may be mentioned: A deluge; a world-fire; marriage to a star-woman (*Cayapó*, *Timbira*, *Sherente*); the deserted boy acquiring fire for Indians from a friendly jaguar (same tribes); the destruction of a man-eating falcon by two brothers (*Timbira*, *Cayapó*); and Sharpened-Leg (*Timbira*, *Cayapó*). The primeval hoarding of all water by Hummingbird and its liberation for general use is shared by the *Caingang* and *Botocudo.* The were-jaguar motif, popular among the *Camacan*, *Mashacalí*, and *Cayapó*, is lacking among the *Botocudo*, *Timbira*, and *Sherente.*

LAGOA SANTA MAN

By Anibal Mattos

The fossil man of Lagoa Santa discovered by Peter Wilhelm Lund in Sumidouro Cave (map 1, *No. 6*) in the Highland of Minas Gerais, Brazil, is well known. (Hansen, 1888; Hrdlička, 1912; Lütken, 1883; Quatrefages, 1879; Rivet, 1908; Ten Kate, 1885.) Research in recent years has thrown new light on the problem of Lagoa Santa man, which now rests on two important questions: the contemporaneity of the human remains with extinct species of mammals, and the relationship of his abundant stone artifacts with other archeological horizons.

Confins finds.—In a cave, Lapa de Confins, remains of the Lagoa Santa type were found associated with extinct mammals. This cave, repeatedly flooded in the past, though in recent times dry and with the entrance blocked, contained mammalian and human remains in a stratum 6½ feet (2 m.) deep and immediately under a layer of stalagmite or calcareous material. Dr. W. Tansley, of the University of Chicago and McGill University, examined the cave and agreed with our conclusions. The fossil mammals included only extinct species characteristic of the Pleistocene period: *Arctotherium brasiliensis*, *Palaeolama weddelii* (llama), *Hydrochoerus giganteus*, *Hippidium neogaeum*, *Machaerodus neogaeus*, *Pecari*, *Tayassu*, *Tapirus*, and *Mastodon*. The human skeleton had evidently been left on the surface after death, as it was broken and bore marks of rodent teeth, but was later buried in the alluvium brought by inundating waters. Subsequently, the cave was left high and dry. The cranium is dolichocephalic, hypsicephalic, and somewhat pyramidal, prognathous, especially in the subnasal region, and mesorrhin, with megaseme orbits, and a shallow, elliptical palatine vault. The norma lateralis is striking for its submaxiliary prognathism. The hypsicephaly and pyramidal form of the skull, especially the former, are regarded as typical of the Lagoa Santa skull. (Hansen, 1888; Rivet, 1908; and others.)

The association of mammals ordinarily regarded as Pleistocene with the Confins skeleton do not imply great antiquity of the remains, but recency of the mammals. There has been a similar caution about the probable age of the human fossils of Lagoa Santa. (Rivet, 1908; Hansen, 1888; Hrdlička, 1912.)

Campo Alegre finds.—In a rock shelter at Campo Alegre, we found the fragments of fossilized human bones of eight individuals in thin layers of ash and calcareous material slightly below the surface.

Deeper, we uncovered crude fragments of arrow points and, finally, a flexed human skeleton of the Lagoa Santa type with the knees against the chin and the arms bent. Near the skeleton were various implements, in which natural rock forms had been utilized. This is the first discovery of artifacts with the Lagoa Santa physical type. These included grinders, axes of irregular shape, and stones with small pits, all probably used to crush palm nuts. The similarity of these artifacts to those of the shell mounds, or sambaquís, of the coast seem to indicate a relationship between the coastal and cave cultures.

In other caves we found the fossilized remains of three individuals of the Lagoa Santa type with some of the bones calcined. In certain caves, especially Sumidouro Cave, the fossilized remains, some showing the effects of fire, were deep at the entrance of the cave, suggesting a long occupation of the sites.

Lapa Vermelha finds.—In this cave we found fragments of various skeletons of the Lagoa Santa type. Nearby were sites of a recent native culture with abundant pottery, stone axes, and petroglyphs on the calcareous rocks. The Lagoa Santa people made neither pottery nor petroglyphs.

Santa Quiteria finds.—In the Municipio of Santa Quiteria in the State of Minas Gerais we found three important archeological sites extending Lagoa Santa man beyond his previous known habitat in Brazil—an area defined by the valley of Rio das Velhas.

Vargem do Bento da Costa finds.—At Vargem do Bento da Costa, in a black, ashy soil, we found part of a human maxillary with typical Lagoa Santa dentition. This site lacked the crude, unornamented pottery which occurs in more recent sites of the region.

Other finds.—Dr. Bastos de Avila discovered fossilized remains of Lagoa Santa man at Lapa de Carrancas, near the city of Pedro Leopoldo. Dr. A. Cathoud (1937) published a study of a Lagoa Santa type skull, which was probably a woman, judging by the delicate outlines, little-developed mastoids, and other features.

It has become evident that there were two or three types of Lagoa Santa man. Eickstedt, following Lund, postulated two ancient types: one of the mountain caves, one of the sea coast. We consider the type found in association with extinct mammals at Confins to be older than that at Lagoa Santa. Precise cross-dating of artifacts associated with Lagoa Santa remains with those in the sambaquís is impossible, as the latter have been almost entirely destroyed without scientific study. A fortunate exception is the sambaquís of Torres, Rio Grande do Sul, which were carefully studied by Serrano (1938, 1938 a).

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Cathoud, 1937; Hansen, 1888; Hrdlička, 1912; Lütken, 1883; Mattos, 1937; Quatrefages, 1879; Rivet, 1908; Serrano, 1938, 1938 a; Ten Kate, 1885; Walter, 1937.

THE SAMBAQUÍS OF THE BRAZILIAN COAST

By Antonio Serrano

INTRODUCTION

The sambaquís are heaps of mollusk shells which occur in the shape of cordons or mounds along a large section of the Brazilian coast. On the shores of some large rivers, such as the Amazon, these deposits are formed entirely by fresh-water species of mollusks.

In both cases these shell deposits often conceal archeological remains and burials of peoples who, in ages past, dwelt along the coast of Brazil.

The word "sambaquí" is of *Tupí-Guaraní* origin and means "hill of shells" (from tambá, "shell," and quí, "hill," in a figurative sense). Its literal equivalents would be conchero in Spanish and shell-heaps in English.

A sambaquí is not always a kitchen midden (kjökkenmöddinger); a large majority of the sambaquís are nothing more than natural deposits of mollusks which the receding ocean left on the shore.

ORIGIN OF THE SAMBAQUÍS

The study of the sambaquís has created two currents of conflicting opinions. One upholds the artificial origin of the sambaquís, stating that they were formed by the accumulation of the shells of mollusks eaten by the people living along the coasts. The other frankly admits that the sambaquís are littoral deposits that were first shaped by natural elements and later inhabited by native tribes. But between these extreme theories is one that admits a mixed origin of the sambaquís, maintaining that the inhabitants of the region kept piling the shells of mollusks which they used for food on top of natural mounds of shells, and thus increased their size. This is sometimes, but not always, true. In the upper part of some sambaquís, which are clearly of natural origin, I have observed shells and bones of fish and mammals that are typical "kitchen waste." But, on the whole, the artificial contribution has hardly affected the general size of the sambaquí. On the Island of Casquerinho, Ihering (1903) observed small hills of oyster shells which represented one family's consumption of shellfish over a period of 20 years. These hills measured 15 to 18 feet (5 to 6 m.) in diameter and 16 to 20 inches (40 to 50 cm.) in height.

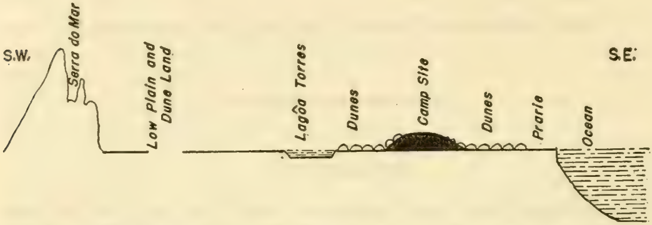


FIGURE 43.—Schematic profile of Torres site, showing location of camp site. (Redrawn from Serrano, 1938.)

The extent of human contributions to these deposits can be judged by the Torres site (figs. 43, 44), which I studied in 1937 (Serrano, 1937). This site consists of a low hill rising near the sea. Old inhabitants state that the hill was covered some 60 years ago with thick woods and was surrounded by level pasture lands. Today, the entire area is waste land, covered with sand dunes.

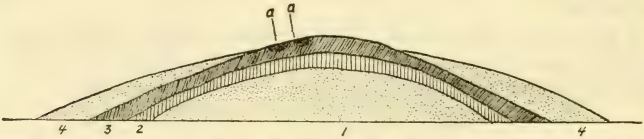


FIGURE 44.—Schematic cross section of camp site at Torres. *Stratum 1,* nucleus of sand (ancient dune); *Stratum 2,* mixed zone between *1* and *3,* about 0.50 cm. (19 in.) thick; *Stratum 3,* sandy decomposed vegetal material, rich in artifacts, varies from 0.10 to 1.20 m. (4 in. to 3 ft. 11 in.) in thickness; *Stratum 4,* recent dunes; *Stratum a,* hearths. (Redrawn from Serrano, 1938.)

The hill is approximately 160 feet (50 m.) in diameter at the base and reaches a height of 230 to 260 feet (70 to 80 m.) above sea level. Embedded in the third stratum are small lenses of kitchen middens, 2 to 4 inches (5 to 10 cm.) thick, and, by all indications, not exceeding 3 to 4½ feet (1 to 1½ m.) in diameter.

Through historical references, we know that the tribes which inhabited or frequented the coast of Brazil ate great quantities of mollusks, the shells of which accumulated and, in some places, became true kitchen middens. As knolls shaped by the ebb and flow of the ocean tides in ages past afforded the highest places along the coast, the native peoples chose these as camp sites and there deposited their refuse.

The fact that the shells of most of the sambaquís are unopened refutes the theory of the artificial origin of these deposits. The mollusks are generally tightly closed, or, if open, there are indications that the meat was removed long ago by the action of wind or water.

We recognize, therefore, that, in general, the sambaquís are littoral cordons or concentrations of shells, broken and reshaped by natural forces; they were later covered with vegetation and occupied by native tribes, who used them as dwelling places and burial grounds.

MORPHOLOGY

As regards their shape, the sambaquís may be classified into three groups: (1) More or less conical mounds; (2) elongated or oval mounds; and (3) low, broad conchiferous layers.

In structure, they are either stratified or homogeneous. The species of shells forming the first group are segregated in definite layers, which argues in favor of their natural origin, as it is inconceivable that the same people could subsist for too long a period exclusively on oysters, then on *Mytilus*, then again on oysters. Furthermore, this specific alternation of layers is characteristic of the coastal deposits formed by the tides.

A typical stratified sambaquí is that of Guarahy Mirim (fig. 45), which was studied by Clerot in 1928. This sambaquí is located on the left bank of the Guarahy River (in the Federal District) in an enormous mangrove swamp. It is 160 feet (48 m.) long, 60 feet (18 m.) wide, and 6 feet (2 m.) high. It has, according to Clerot, "five superimposed, clearly stratified layers with indisputable evidence of natural formation" (1928, p. 462). The first layer (*1*), 4 inches (10 cm.) thick, was formed by an accumulation of rain-washed shells. The second (*2*), 23 inches (60 cm.) thick, is of white sand mixed with ferns. The third (*3*), 10 inches (25 cm.) thick, a mixture of shells and sand, rests upon a fourth (*4*), 14 inches (45 cm.) thick, formed of sand mixed with bluish mud in which occur ferns. Beneath the fourth layer is a layer of sand 23 inches (60 cm.) thick (*5*), without mollusks.

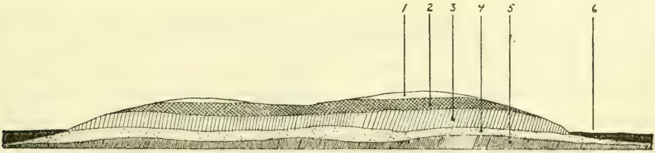


FIGURE 45.—Cross section of stratified sambaquí of Guarahy Mirim. *1*, Rain-washed shells; *2*, white sand mixed with ferns; *3*, shells and sand; *4*, sand mixed with bluish mud and ferns; *5*, sand; *6*, modern refuse. (Redrawn from Serrano, 1938.)

The solid, or homogeneous, sambaquís are those without stratification, which some authors consider as proof of their artificial origin. Nevertheless, I must point out that the solid sambaquís generally consist of species which preferably live in regions around estuaries, a circumstance which is decidedly favorable to their formation by natural agencies.

ANTIQUITY OF THE SAMBAQUÍS

Elsewhere I have said that "the origin and antiquity of the sambaquís is purely a geological problem, and it is a waste of time to maintain that native artifacts found in them are of the same age, merely because of having been discovered there" (Serrano 1938 b, p. 50).

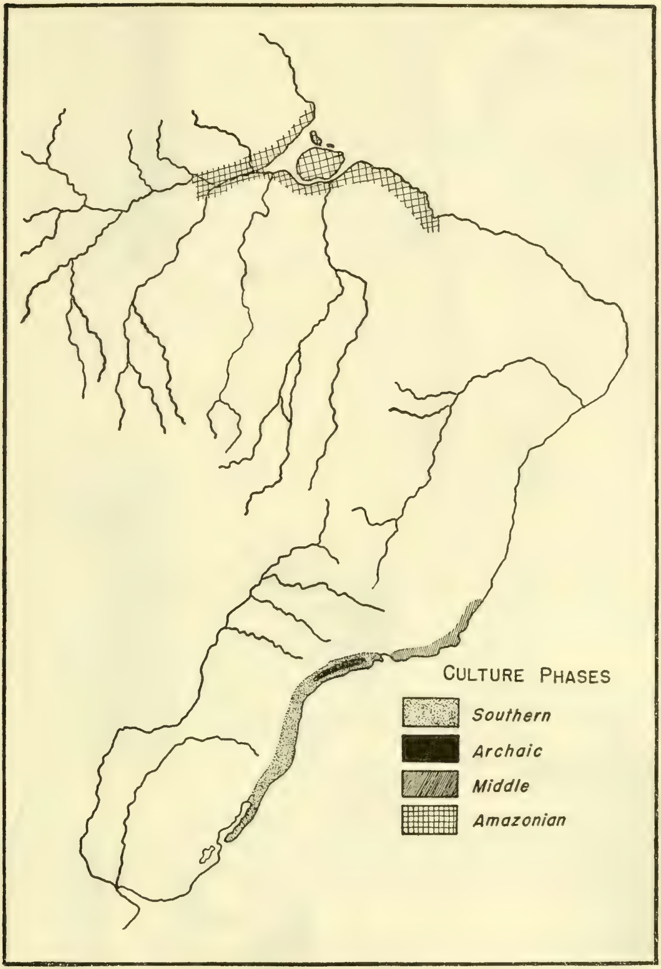
Littoral cordons, which in the great majority of cases resulted from the ebb and flow of tides in the Pleistocene Period, were broken, reshaped, and later covered with thick vegetation. Throngs of native tribes on approaching the sea in an age very close to our own found those places very desirable and settled on them. In 1895, Ihering, noting the presence of *Azara prisca* in some of the sambaquís, pointed out the convenience of dividing them into two series: the more ancient sambaquís with this species, which are the farthest from the sea; and the more modern without it. This fact was verified years later by Krone (1914) through his studies of the sambaquís of Iguapé (State of São Paulo).

It is interesting to note that both types of sambaquís have different cultural phases. Artifacts in the most ancient sambaquís, which are farthest from the sea, correspond to the primitive culture of Lagoa Santa, while the most modern are analogous to the classic archeological culture of the coastal region, with its carefully polished stone articles, to which I have given the name of "lithic culture of southern Brazil."

CULTURES AND RACE

The prevailing idea in the study of the sambaquís has been that of a cultural unity—a single sambaquí culture—that is distinctive and characteristic of these deposits. It is no longer possible to maintain this. The cultures which flourished along the coast on the sambaquís are mere littoral occurrences of other cultures of wide geographical distribution. The culture of the sambaquís of the southern States, for example, extends many thousands of kilometers toward the west in the States of Rio Grande do Sul and Santa Catalina and bears no relation to that of the sambaquís with *Azara prisca*, or to that of the Amazonian sambaquís.

These cultural manifestations may be grouped into four phases: the southern; the middle; that of the sambaquís with *Azara prisca;* and the Amazonian (map 6).


CULTURE PHASES
Southern
Archaic
Middle
Amazonian

Map 6.—Distribution of the four sambaquí culture phases.

The southern phase (the meridional) includes the sambaquís of Rio Grande do Sul, Santa Catarina, Paraná, and the southern part of São Paulo. It is characterized by the concave zoöliths (pl. 79, *a*) and well-shaped polished axes of well-defined types. In the southern region may be found circular sling shots and stones for bolas (pl. 80).

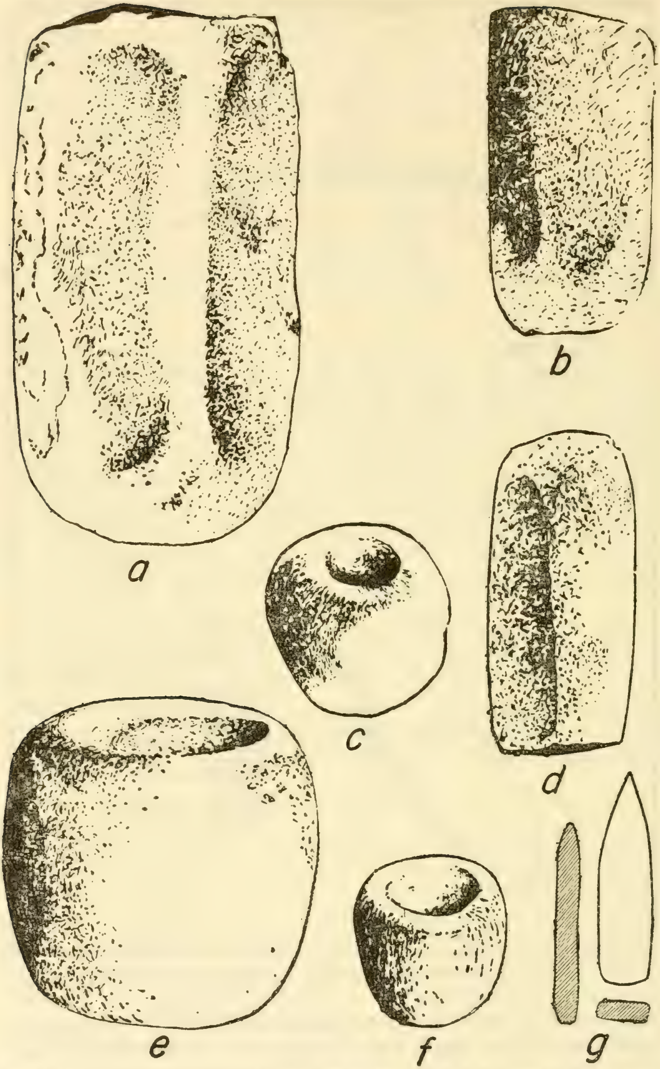


FIGURE 46.—Ground-stone artifacts from the sambaquís. *a, b, d,* Hachas tabulares, Torres site, Rio Grande do Sul, presumably meridional phase; *c, e, f,* mortars, Torres site, Rio Grande do Sul, presumably meridional phase (⅓ natural size); *g,* arrow point, meridional phase (½ natural size). **(After Serrano, 1938, pls. 5, 6.)**

There are also pieces of pottery, with thumb impressions, which show unquestioned *Guaraní* influence and which demonstrate that the *Guayaná*, inhabitants of these sambaquís, were acculturated by the invading *Guaraní.*

The archaic culture phase of the ancient sambaquís of São Paulo—those containing *Azara prisca*—belong to the culture of Lagoa Santa man. Stone artifacts are represented especially by axes, which are more or less triangular in form, or are oval and crudely fashioned by heavy blows (pl. 78, *d*, *e*); sometimes these are slightly polished (pl. 78, *a*, *b*, *c*). Chipped-stone knives and scrapers (pl. 78, *f*, *g*, *h*) and hammer stones complete the list of stone implements of this phase. There is no pottery.

The middle (media) phase corresponds to the sambaquís of the States of Rio de Janeiro and Espírito Santo. Stone articles consist of fine polished axes of diorite (pl. 79, *c*, *h*), which are similar to some types of the second cultural stage of the valley of the Rio das Velhas (Serrano, 1940 f). Of pottery there are only undecorated fragments.

In the Amazonian phase, the cultures are not homogeneous and are related to typical Amazonian cultures. Those of the sambaquís of southern Brazil correspond to the ancient *Tapuya*, tribes which occupied the coast before the invasion of the *Guaraní.* The migration of the *Guaraní* toward the Atlantic Ocean is relatively modern, although pre-European. On invading the coast, the *Guaraní* drove out the *Tapuya* and took their dwelling places or conquered them and influenced their way of life. This is why typical *Guaraní* cultural elements and skeletal remains appear in the sambaquís.

The paleo-American is the racial element that produced the culture of the southern sambaquís; this element is now divided by Imbelloni into raza láquida and raza fueguida.

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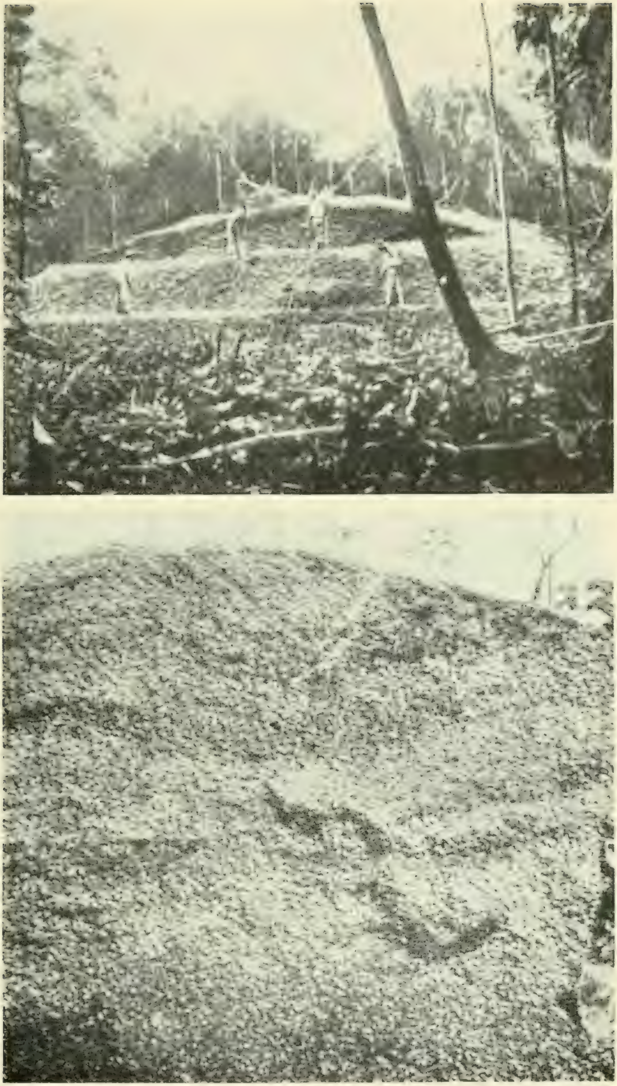

PLATE 77.—**Structure of Sambaquí.** *Top:* View of typical sambaquís during excavation. *Bottom:* Cross section of sambaquís at Tito, São Paulo. (After Krone, 1914.)

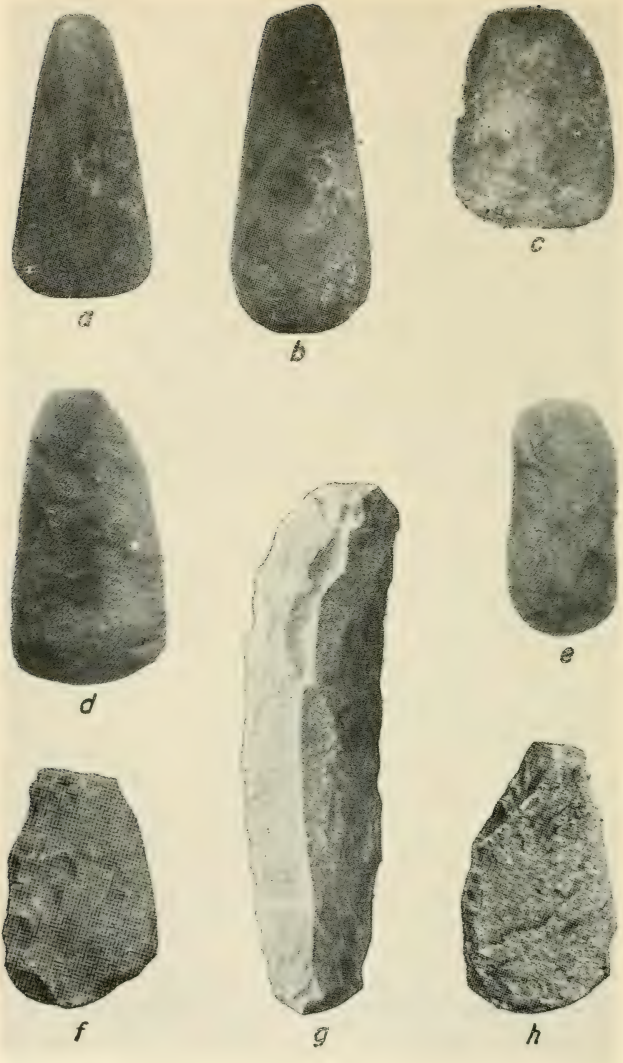

PLATE 78.—**Sambaquí artifacts, archaic phase.** *a, b, c*, Ground-stone celts, ⅓ natural size; *d, e*, chipped-stone axes or celts, ⅓ natural size; *f, g, h*, chipped-stone artifacts, ¾ natural size. (After Serrano, 1938 b, pls. 19, 20.)

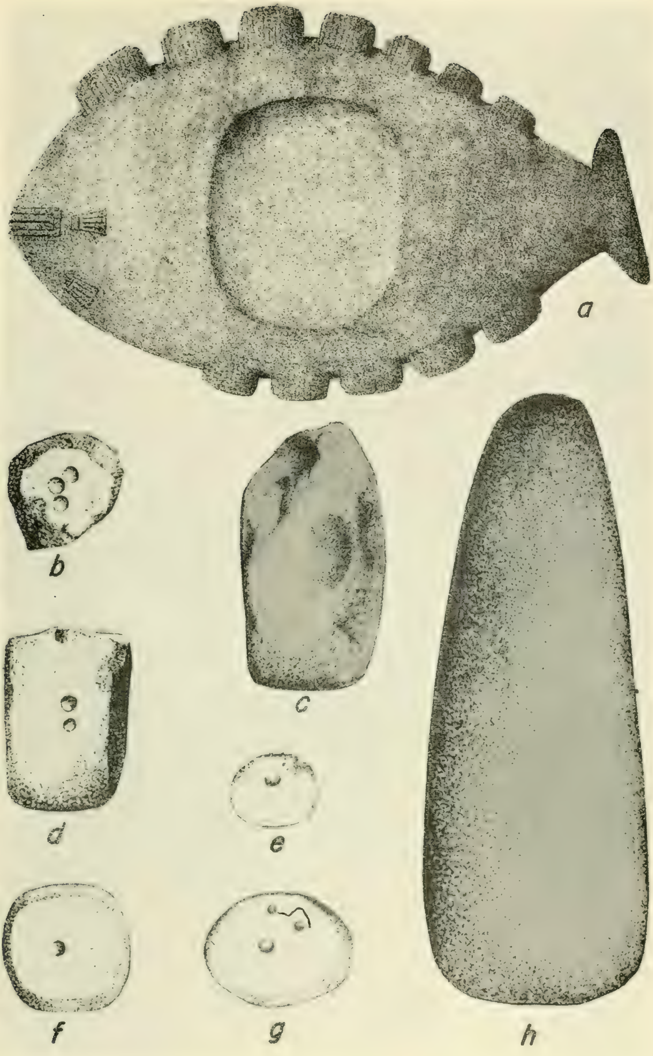

PLATE 79.—**Sambaquí artifacts, meridional and media phases.** *a*, Stone fish with concavity, presumably meridional phase (after Netto, 1885, pl. 6, No. 21); *b*, *d-g*, pitted stones, ⅙ natural size, presumably meridional phase, from Torres site, Rio Grande do Sul (after Serrano, 1938, pl. 5, No. 1); *c*, *h*, groundstone celts, media phase, natural size (after Serrano, 1938 b, pl. 20, No. 3).

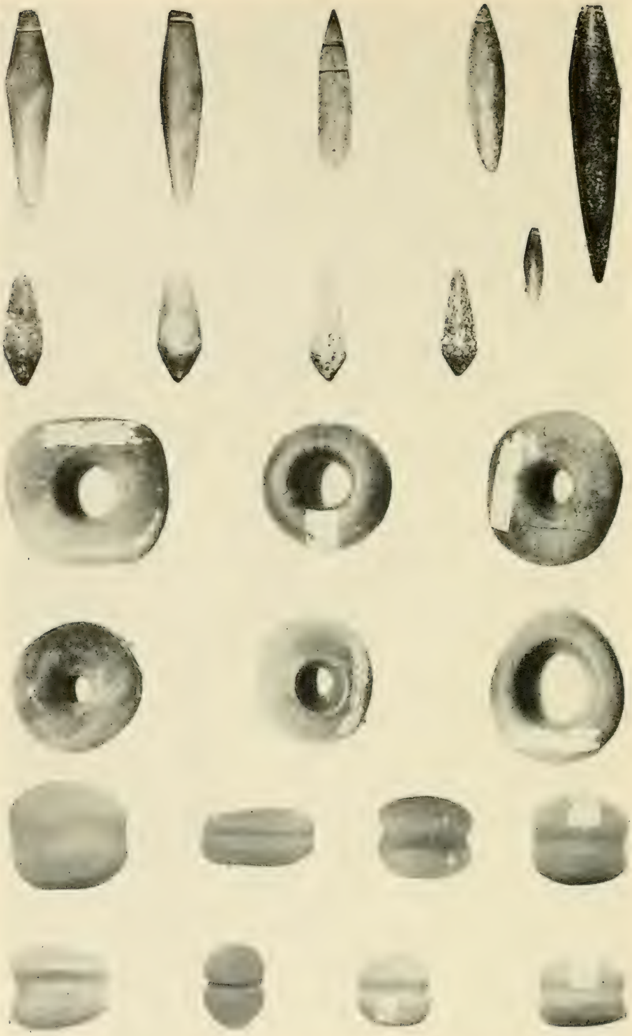

PLATE 80.—**Sambaquí artifacts, meridional phase.** From the Torres site, Rio Grande do Sul. *Top rows:* "Fusos" with and without grooves, meridional phase. *Center rows:* Skull crackers. *Bottom rows:* Grooved bolas stones, presumably meridional phase. (After Serrano, 1938 b, pl. 21, No. 1; pl. 19, No. 1; and pl. 4 No. 1.)

THE GUATÓ

By Alfred Métraux

The *Guató* inhabit the marshy and flooded plains of the upper Paraguay River Basin (lat. 19° S., long. 58° W.) (map 1, *No. 7*).

ARCHEOLOGY

On the plains there are low mounds covered with groves of acuri palm (*Attalea* sp.), a plant of great economic importance to the *Guató*. Two mounds near the Caracara River, investigated by Max Schmidt (1914), proved to be artificial ellipsoidal platforms—one measuring 540 feet (140 m.) by 245 feet (76 m.); the other, 170 feet (52 m.) by 150 feet (45 m.)—that had been built about 2 feet (0.6 m.) above the original ground level to provide places where the acuri palm could grow safely above the reach of floods. Pits, from which earth for the construction had been taken, remain near each mound. The accumulated earth contained animal bones, snail shells, stone fragments, and potsherds. The exceedingly crude pottery is very similar to that of the modern *Guató*. It is ornamented only with scratched lines and a few incised grooves around a somewhat thickened rim. Not a single stone ax was found. A grave contained a skeleton in a reclining position with its head toward the west and two plain stone hammers similar to those which the modern *Guató* use to crack acuri (*Attalea* sp.) palm nuts. These parallels between the early builders of the mounds and the present *Guató* suggest a fundamental cultural identity.

HISTORY AND GEOGRAPHICAL POSITION

The few references to the *Guató* which appear in the literature have been quoted and commented on by Max Schmidt (1942). The *Guató* are mentioned twice in the Comentarios of Alvar Nuñez Cabeza de Vaca (Hernández, 1852, pp. 583, 589) as a tribe of the upper Paraguay River, and their name is associated with that of the *Guaxarapo* (*Guachi*), with whom they have been often confused by early authors. It is perhaps for this reason that they are said to have joined the *Guaxarapo* in a cannibalistic feast on the corpses of Spanish soldiers of the Francisco de Ribera expedition. Hernández (1852, p. 577) probably had the *Guató* in mind when he spoke of the Indians of the upper Paraguay River who, during the flood season, lived entirely in their canoes, where they kept a fire on a layer of soil.

Azara (1809, 2:81) was the first observer in more recent times to give concrete information about these Indians. He describes them as a tribe of only 30 families who wandered continually in dugout canoes in a lagoon, west of the Paraguay River, under lat. 19°12′ S. (probably Laguna Caceres). In 1846, Castlenau (1850–59, 2:373–374; 3:13–14) found them on Lake Gaiba and along the Pando River, the canal which unites it with Lake Uberaba. An official document of 1848 puts the number of the *Guató* at 500 and gives as their habitat the course of the Paraguay River from the mouth of the Paraguay Mirim to Descalvado, and the course of São Lourenço River down to its junction with the Cuyabá River and the lakes of that region. During the second half of the 19th century the *Guató* were deciminated by smallpox epidemics, and on several occasions during the Paraguayan war, they were molested both by the Paraguayans and by the Brazilians.

In the present century they have been visited three times by Max Schmidt, whose three monographs describe their material apparatus but contain scant data on their social and economic life. In 1901 Max Schmidt (1905, p. 175) counted 46 *Guató* living in isolated families on Lake Gaiba and Lake Uberaba and on the Pando River. A few *Guató* also lived at Figueira on the Paraguay River, on the lower São Lourenço River, and along its tributary, the Caracara River. In 1928 Schmidt met about the same number of *Guató* scattered from Descalvado to Lake Gaiba. Although their total population perhaps exceeds the number seen by Schmidt, there is no doubt that the *Guató* verge on extinction. Physically and morally, they seem to have been adversely affected by intimate contacts with Neo-Brazilians.

Physical appearance.—The contrast between the *Guató's* developed chest and muscular arms and his stunted and bowed legs and flat feet has always impressed travelers (pl. 82). These features are attributable to the amphibious existence of the *Guató*, who lived mostly in canoes and took only short, infrequent walks on shore.

CULTURE

SUBSISTENCE ACTIVITIES

Collecting and farming.—The *Guató* could easily subsist on the many food resources provided by their environment. Only a few of the plants which they used have been listed in our sources. The acuri (*Attalea* sp.), the fruits of the yatubá (Max Schmidt: sibota) tree, and the seeds of an aquatic plant (forno d'agua) were important in their diet. In the flood season, they harvested in their canoes great quantities of wild rice (*Oryza sativa* or *perennis*), which temporarily became a staple. They also collected the wild bananas which grew near ancient habitation sites.

Modern *Guató* practice some agriculture, but, according to Max Schmidt (1942, p. 68), it is almost limited to the cultivation of bananas and acuri palms on "aterrados," or artificial mounds. An official report of 1848 (see Schmidt, 1942, p. 72) states that "sometimes the *Guató* raise maize, manioc and fruits, more as delicacies than to secure their subsistence." Koslowsky (1895 a, p. 250) also alludes to maize fields, and says that during his stay among these Indians he lived on maize and bananas. They probably also grow some cotton since this was used in their industries.

Max Schmidt (1942, p. 67) noticed that the *Guató* planted a few crops along the riverbanks on tracts periodically covered by floods. The same type of agriculture is reported for the ancient *Guachí*.

Hunting and fishing.—The favorite game animals of the *Guató* were caimans (whose tails were relished), turtles, lizards, boas (sucuri, *Eunectes murinus*), deer, monkeys, and birds. The only hunting practices which are known are those used against jaguars. It was not uncommon for a *Guató* to attack a jaguar single-handed. By beating the ground with his spear and making roaring noises, he induced it to leap and then impaled it on his weapon. Another and safer method consisted in luring the animal into the water by imitating its call with a cow horn and killing it with a spear from a canoe.

Fish were caught with hooks or shot with ordinary barbed arrows or with harpoon arrows. The thrashing fish were clubbed to death before the arrow broke.

Food preparation.—Men did most of the cooking. Meat and fish were usually boiled—meat often together with mashed green bananas. Caiman tails as well as fresh maize and bananas were roasted in hot ashes. Salt and pepper (a wild *Capsicum*) were the main condiments.

Acuri nuts were broken with a stone hammer on a flat rock; as a result, both instruments were pitted with characteristic small cavities after long use. The utensils required for food preparation were pots, wooden mortars, wooden bowls for washing fish, gourds, flat sticks with carved edges for stirring the soup, and shell or wooden dippers.

Men and women ate apart.

Domesticated animals.—The *Guató* had hens and also had dogs trained for hunting. They kept wild birds as pets.

HOUSES

Each family spent several months in a permanent dwelling on the bank of some river. Modern houses are in the Mestizo style with a gable roof on trunk walls. The primitive hut—which the *Guató* still built 40 years ago as a temporary shelter when camping—was a flimsy, primitive, thatched, gable roof resting on the ground (fig. 47). Camp sites were the common property of all the family groups.

Goods were stored out of reach of sudden floods on a platform indoors or in trees outside. Beds consisted of a mat plaited of acuri leaves, or of a rough cloth of intertwined tucum fibers, or of a jaguar or deer skin. Seats varied from crude lumps of wood to carved four-footed stools.

To avoid mosquitoes, an unbearable menace after sunset, the *Guató* slept in large, tent-shaped mosquito nets, made of intertwined tucum (*Astrocaryum* sp.) fibers, which they stretched between two trees or two paddles stuck in the ground. During the day they drove off the mosquitoes with a sort of swatter or flap consisting of a piece of tucum fiber or cotton cloth attached to a short stick (pl. 81, *top*). In the rainy season they never moved without their mosquito flap.

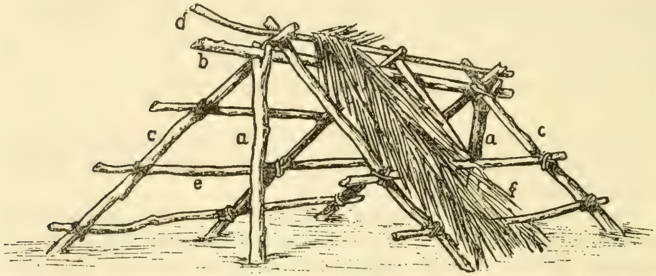

FIGURE 47.—*Guató* house construction. Caracara River, Matto Grosso. (After Max Schmidt, 1914, fig. 32.)

DRESS AND ORNAMENTS

Both sexes wore a piece of cloth around the waist but later abandoned it in favor of European garments. Formerly, some *Guató* had long hair with a single wrapped braid behind; today hair is cut short. The *Guató* are among the few South American Indians with full beards and mustaches.

Ornaments were few: a wooden labret in the lower lip, a small tuft of feathers in the ear lobes, and necklaces of seeds (Lagrimas da Nossa Senhora) and animal teeth (especialy caiman teeth and claws).

TRANSPORTATION

Most of life was spent in dugout canoes; these had a tapering bow and a somewhat widened and massive stern, often with a low, raised edge, where the woman sat to steer. Paddles were well made, lanceolate, 7½ feet (2.2 m.) long, and characteristically lacked any crutch or grip. In shallow marshes, canoes were punted with poles, often with a wooden fork attached to the distal end to give a better hold on the aquatic plants.

MANUFACTURES

Basketry.—The technique was affected by the predominant use of the acuri palm. Unlike the fan palm, which permits a greater range of combinations, the fronds of the acuri, having pinnate leaves, can be woven only to produce patterns of oblique and perpendicular stripes. *Guató* baskets, mats, and fire fans (pl. 81, *bottom*) were made of whole fronds, with the midrib included in the finished specimens. The weave was a simple checker or twill, and the edges were braided.

Spinning and weaving.—Ropes, strings, and threads were made of tucum-palm fibers or cotton. Women carded cotton with a small bow, almost certainly of European origin; it was used in South America only by the *Churapa*, *Chacobo*, *Guarayú*, *Itenes*, *Guaná*, and *Guató*. Cotton threads were spun clockwise with a drop spindle—a stick nicked at the proximal end and fitted with a whorl of wood or turtle shell. Tucum fibers were spun counter-clockwise by rolling them with the hand on the thigh. Three-ply string was twisted by rolling the strands on the thigh.

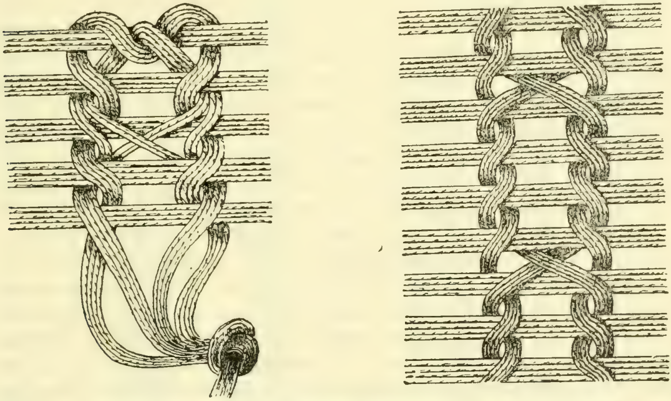

Figure 48.—*Guató* twining techniques. Detail of mosquito fan. (After Max Schmidt, 1905, figs. 128, 129.)

Textiles were transitional between basketry and true weaving, all being variations of the twined weave (fig. 48). For mosquito nets, certain mats, and some swatters, the warps were crudely twisted bundles of tucum fiber which were twined together at wide intervals. Other mosquito flaps and wrist guards for shooting bows had a quadruple weft twined over a warp—often double—so tightly as to appear woven. Looms consisted of two posts between which the warp was wound. Only a simple wooden dagger was used in weaving. Threads were dyed orange, brown, violet, black, yellow, and numerous other shades in decoctions of the bark or wood of several trees. On tightly woven cloth, only the weft showed and carried the design. Different colors were used to produce wide alternating vertical or horizontal bands. These occurred especially on mosquito swatters and on arm bands.

Pottery.—Women made a few cooking vessels, water jars, and bowls. The ware was coiled, smoothed with a shell, and baked for about 10 minutes in an open fire. Vessels were usually rounded and had pointed bottoms. Water jars had short necks. The finish was crude and the decoration was limited to rudimentary fingernail impressions and small lugs.

Weapons.—The most important weapon was a spear (fig. 49, *bottom, left*), the shaft of which was inserted into the hollow end of a sharpened bone point, usually a femur. Bows were from 6 to 7 feet (1.8 to 2.1 m.) long and had two characteristic features: a more or less circular cross section and a lack of terminal notches for the bowstring. The bowstring was affixed at each end of the bow to a ring plaited over a wrapping of cipo (creeper) strips, covering the whole stave (fig. 49, *bottom, right*). Formerly, the bowstring was of monkey sinew; recently, always of tucum fiber. Arrows were made of cambayuva reed or uba reed, with a wooden foreshaft. Uba reed, being brittle, had an artificial notch made by inserting three small wooden splinters in the butt (fig. 49, *top*). Arrows had six types of heads: (1) A cylindrical stick tipped with sharp bone, for ordinary purposes; (2) lanceolate bamboo for large game; (3) a knobbed head for shooting birds and knocking yatuba fruits from trees; (4) barbed points, or (5) removable (harpoon) heads for shooting fish; (6) plain sharpened wood for target practice. The wooden harpoon head had barbs carved along one edge and was tipped with a bone point (fig. 50, *a*). It was fitted loosely into a funnel made by wrapping a cipo strip around the end of the foreshaft and was connected to the shaft with a string (fig. 50, *c*). Schmidt (1908, p. 188) describes a bird arrow made of a cambayuva stem, with the bulge near the root serving as the head. All *Guató* arrows, including those for fish, had two feathers with their barbs trimmed on one side and attached tangentially at each end. When shooting, the arrow butt was seized between the index and the middle finger and the string was pulled by these and the ring finger.

Pellet bows, projecting clay missiles, were popular as children's toys (fig. 50, *d*). The stave was flat, except for the rounded grip, and was notched at each end for the string.

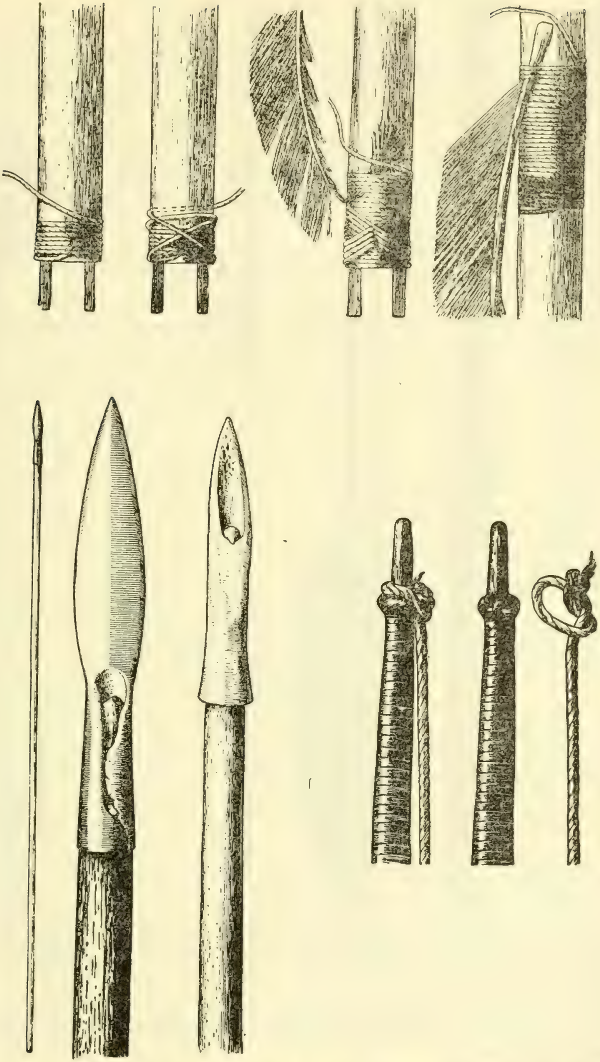

FIGURE 49.—*Guató* arrows, bows, and spears. *Top:* Details of arrow-shaft butt wrapped with cotton string and attachment of feathers. Small sticks are inserted to form notch (⅔ natural size). *Bottom (left):* Complete lance (1/20 natural size); lance with iron point, and lance with jaguar-bone point (⅜ natural size). *Botton (right):* Detail of bow string attachment (⅓ natural size). (After Max Schmidt, 1905, figs. 52 to 55; 41, 42; and 44, 45.)

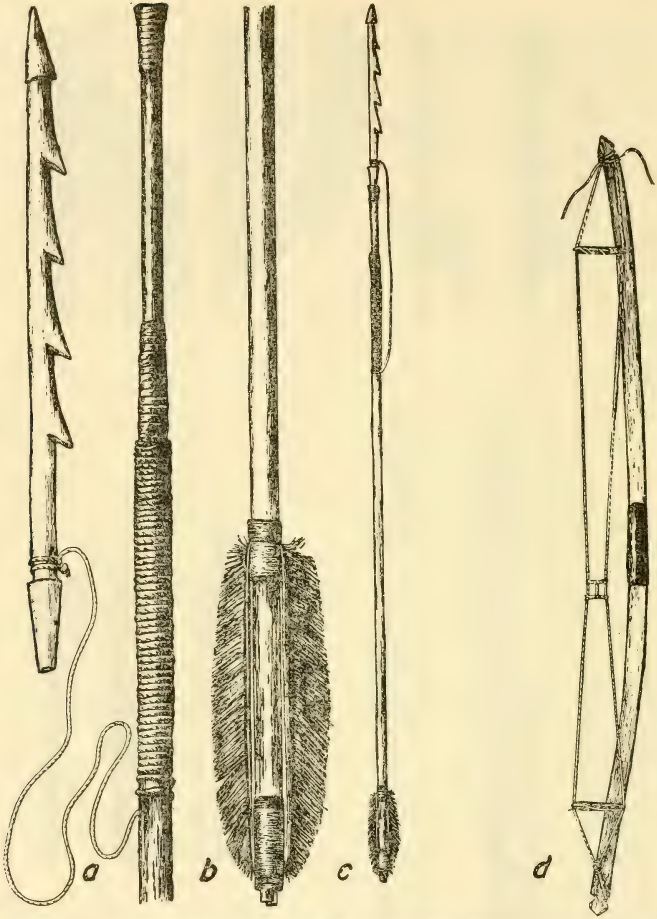

Figure 50.—*Guató* harpoon and pellet bow. *a,* Harpoon shaft with barbed bone point (⅓ natural size); *b,* detail of harpoon feathering (⅓ natural size); *c,* complete assembled harpoon (1/12 natural size); *d,* pellet bow (⅙ natural size). After Max Schmidt, 1905, figs. 71, 72.)

Wrist guards were cotton strips, 2 feet (0.6 m.) long, wrapped around the wrist.

Fire-making.—Fire was made with a drill, often inserted into an arrow shaft to increase its length. The hearth had notches beside the holes.

Adhesives.—Wax and yatoba resin were used as adhesives.

SOCIAL AND POLITICAL ORGANIZATION

All *Guató* were split into small, biological families which generally lived alone and camped apart even when near other families. A boy left his father's camp immediately after puberty to establish his own family.

The three *Guató* local groups or subtribes, each with a headman, inhabited: (1) The upper Paraguay River Basin; (2) the region of Lake Gaiba and Lake Uberaba and the hills of Caracara; (3) the lower São Lourenço River. On certain occasions, the headmen would summon all the men of the subtribes to a general council. Castelnau (1850–51, 3:13) states that all *Guató* would foregather twice a year at some conspicuous geographical spot, such as Dourado Mountain or the entrance of Lake Uberaba. Chieftainship was inherited patrilineally. A chief whom Koslowsky (1895 a, p. 242) visited was surrounded by his grown sons and their wives (extended family).

Tribal members who had been absent for a long time were welcomed with wails and tears.

Although today, the *Guató* are as a rule monogamous, formerly, when the tribe was more numerous, they were polygynous. According to Castelnau (1850–51, 3:113), a man might have from 4 to 12 wives, despite their mutual jealousy.[1] If a woman were barren or died, her husband might marry her sister. Koslowsky (1895, p. 233) describes a *Guató* who successively married all his first wife's sisters and finally obtained the number of children he desired.

Kinship terms distinguish the father's from the mother's siblings. Terms for uncles are shortened forms of the mother and father terms: F, bápa; FBr, pa; M, meme; MBr, me.

Each family is an economic, self-supporting unit. Though they like to visit one another, they seldom trade goods on such occasions. Etiquette requires that visitors announce their arrival by blowing a cow horn.

Men do most of the work, providing and cooking food, making baskets, and paddling canoes.

A man's prestige depended, among other things, on the number of jaguars he had killed. It is even said that a young man could marry only after he had slain a jaguar. Piles of jaguar skulls were exhibited near the huts.

The dead were buried with funeral laments. A woman clipped her hair short when she had lost her husband but only cut half its length to mourn a dead child (Koslowsky, 1895 a, p. 248).

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[1] The official document quoted by Max Schmidt (1942, p. 72) says, "as they are polygamous it is not rare to see a *Guató* traveling with 5 or 6 canoes filled with his wives and children. However, they have generally only two wives and some of them are content with one."

WARFARE

Except for many years' warfare against the *Caingang*, the *Guató* were peaceful and did not trespass on the territory of their neighbors.

ESTHETIC AND RECREATIONAL ACTIVITIES

Musical instruments.—The *Guató* formerly used bamboo or bone flutes with three stops. In modern times, they played only guitars copied from European models, accompanying them with the musical rasp or notched stick.

Dances.—The two favorite dances were the kururu and the siriri, both introduced by Brazilian Mestizos. The kururu was simply a walk to the rhythm of a song improvised on any occasion, and generally in honor of the host. In the siriri, the participants, jumping and bouncing, broke a line formed by other dancers.

Beverages.—Each family owned a grove of acuri palms from which they obtained wine in the dry season. They climbed the trees on a notched ladder, bent down the fronds and pierced the bases with a shell to collect the sap—a procedure which usually killed the tree. After standing overnight, the slightly fermented sap was sipped through a reed.

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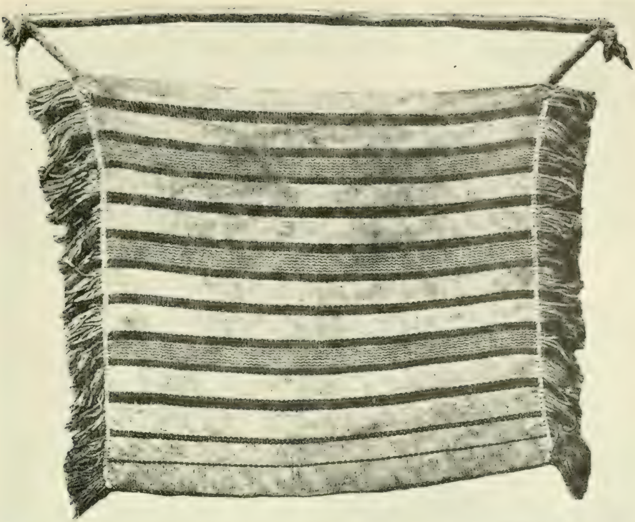


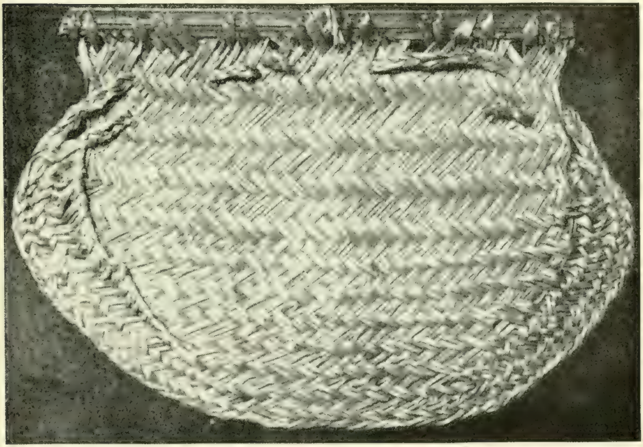


PLATE 81.—**Guató implements.** *Top:* Mosquito fan of cotton, ¼ natural size. *Bottom:* Twilled fire fan ¼ natural size. (After Max Schmidt, 1905, figs. 133, 106.)

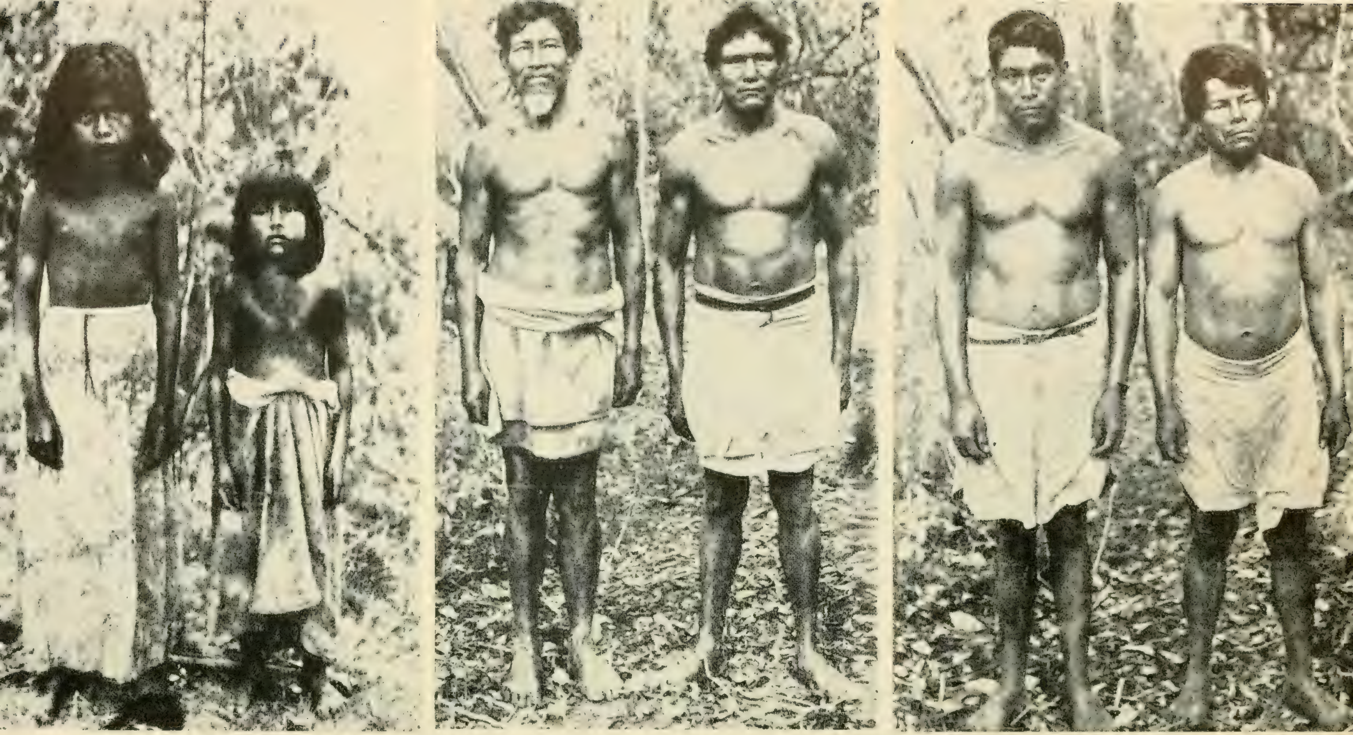


PLATE 82.—**Guató Indian types from Caracara River.** (After Max Schmidt, 1914, figs. 25, 26, 27.)

THE BOROROO

By Robert H. Lowie

TRIBAL DIVISIONS AND HISTORY

The *Bororo* linguistic family comprises two major branches, the *Bororo* proper and the *Otuké* (Créqui-Montfort and Rivet, 1913). Culturally, the *Otuké* must be considered with the tribes of the Province of Chiquitos (Handbook, volume 3). Ethnographically, the *Bororo*, at least of the *Eastern* subdivision, are far better known.

I. *Bororo:* (1) *Eastern Bororo;* (2) *Bororo da Campanha;* (3) *Bororo do Cabaçal;* (4) *Umotina* (*Barbados*), formerly between the upper Paraguay and Sepotuba Rivers, peaceable since 1913; remnants survive in Barra dos Bugres; (5) *Bororo* of the upper Rio Cuyabá; and (6) *Bororo* in the Minas triangle (aldeas of Sant' Anna, Pizarrão, Lanhoso, and da Pedra, founded in 1741 with *Bororo* from the Rio dos Porrudos as a protection against the *Southern Cayapó.* In 1811 part of the aldea das Pedras was transplanted to Bananal, an Araguaya River island. The fifth and sixth groups are now extinct.

II. *Otuké:* (1) *Otuké* proper, about lat. 17°–18° S., long. 59°–60° W.; (2) *Covareka*, about lat. 17° S., northwest of the preceding; and (3) *Curuminaka*, just southwest of the Guaporé headwaters, lat. 16° S.

The *Bororo* subfamily centers in Matto Grosso, but extends slightly across the Bolivian border and into western Goyaz. Excluding the virtually extinct groups noted, we may recognize a *Western* and an *Eastern* subdivision. The former includes the *Bororo da Campanha* (*Campina*), i. e., the plains dwellers southwest of the lower Rio Jaurú, an affluent of the Paraguay River; and the *Bororo Cabaçaes* (*do Cabaçal*), north of the Jaurú River on both banks of the Rio Cabaçal. The *Eastern Bororo*, or "*Orarimugudoge,*" to whom the blanket term "*Coroados*" has sometimes been applied, extends from lat. 15° to 18° S. and from long. 52° to 56° W. The three subtribes live about (1) the upper and middle São Lourenço River; (2) the Rio das Garças, a tributary of the Araguaya River; and (3) the Rio Vermelho, affluent of the upper São Lourenço; here are the villages of Kejara, Pobori, and Jarudori.

In 1888, Von den Steinen (1894) visited a São Lourenço group which had been settled at Thereza Christina, near the Prata-São Lourenço confluence, southeast of Cuyabá. He set the population at 350 and heard that it had originally been 1,000. Another group was then settled at Izabel, at the Pequirý-São Lourenço confluence. In 1901, W. A. Cook (1907) visited eight villages in this region.

The Rio das Garças district has been missionized by Salesians since 1902, Colbacchini describing the natives in a major treatise (1925). In 1934, Baldus (1936) visited Sangradouro, Meruri, and Tori-paru, villages in this area, and estimated that less than 1,000 *Bororo* lived east of the Paraguay River. In Tori-paru he found a little over 100 residents, 35 men occupying the men's house.

Lévi-Strauss (1936) investigated the village of Kejara of the Vermelho division and estimated its population at 140. This is probably Frič's Kejari (1905), since moved to a different spot.

In 1894, J. Koslowsky (1895 b) saw some *Western Bororo* in Descavaldos and across the Bolivian border.

In 1931, Petrullo (1932) took photographs of the *Bororo da Campanha* and on the São Lourenço River. His excavation of sites at Descavaldos revealed pottery and a method of interment different from those of the *Bororo* and presumably pre-*Bororo.*

CULTURE

SUBSISTENCE ACTIVITIES

Whether the tribe farmed prior to white influence is not clear. Von den Steinen (1894) insists that they did not; cultivation, he emphasizes, occurred only along the headwaters of the São Lourenço River, and even there was confined to tobacco, cotton, and gourds used as containers, i. e., to species not serving for food. In a western aldea the growing of manioc and maize noted by Koslowsky (1895 b) seems to have been incipient, since he considered the amount insufficient for a fortnight's sustenance. Colbacchini (1925) denies agriculture but records a myth explaining the origin of maize; and of Baldus' (1936) informants some strongly affirmed and others disputed the cultivation of maize (milho) in earlier times. On the Vermelho River, manioc and maize are planted nowadays, in addition to rice, which is, of course, very recent.

At all events, it seems safe to conclude that the *Bororo* were predominantly hunters, gatherers, and fishermen. Typically, a husband would go hunting game in the woods while his wife collected seeds, climbed palms for nuts, and dug up roots with a stick. Women also helped returning hunters by carrying their kill home. Game animals included peccaries (the favorite food), tapirs, jaguars, rabbits, and various birds. Communal hunting expeditions, possibly extending over several weeks, were inspired by medicine men, who indicated the sites for major enterprises. Dogs were originally quite unknown.

Fish are caught in nets or weirs, shot with arrows (pl. 86, *bottom*), or drugged. Some are killed with short clubs suspended on the back from a neck-cord. Barbed harpoons are hurled at large fish and caimans.

Food preparation.—Salt was originally unknown.

All game animals are roasted in their skins; only the intestines are boiled. Meat, bones, and nuts are sometimes pounded in a mortar only 16 inches (40 cm.) in height; it has the shape of a decapitated egg, and is planted in the ground. The nuts, either thus pounded or roasted, are mixed with water and stirred into a gruel, which is served to guests.

HOUSES AND VILLAGES

In the dry season the *Eastern Bororo* settlements are near the river banks, whence they are shifted to higher ground when the rains set in. Even in temporary encampments the center is occupied by a large rectangular house—the men's club, workshop, and ceremonial hall, which likewise serves as the bachelor's dormitory. The family houses, on the other hand, are arranged along the circumference of the circle of which this men's house is the center. Only the *Cabaçaes* lack this characteristic structure, and even they have as its functional equivalent an enclosed space taboo to women and children.

Among the *Eastern Bororo* the northern and southern halves of the village circle are associated each with one of the moieties and their constituent clans. At Kejara a second principle of dual division appears: besides the axis that separates the northern from the southern moiety there is another perpendicular to the Vermelho River, creating an Upstream and a Downstream half. Here tradition alleges the pristine existence of several concentric house circles, with residences of the same clan behind one another.

The family house type, though always palm-thatched, differs according to the time of year. During the dry season it is of conical shape and erected with a central pole or tree against which other poles lean. In the frame put up for the rainy season, a crossbeam supporting other poles rests on two forked sticks (pls. 83, *bottom;* 84); generally this hut rises directly from the ground, but occasionally it is put on piles. The erection of the residence is a man's duty.

The women within a house belong to the same clan, each family having its own fire, so that every newly married girl acquires a separate fireplace. The furniture includes mats to sit and sleep on, for even outdoors these Indians avoid resting on the bare ground, over which they spread palm leaves or the branches of a tree. However, there are also platform beds rising about 12 to 16 inches (30 to 40 cm.) above the ground and covered with a layer of palm-leaf stems. Mats or skins serve as blankets. Hammocks are unknown.

A hut contains pots, spits for roasting, rocks for breaking hard seeds, spindles, and bivalve shells used as spoons and scissors. A mother will put her baby in the central concavity of a mat suspended by four cords from opposite sides, a fifth enabling the woman to rock her infant while she is attending to her chores. In some huts a stage 2 feet 6 inches to 3 feet 6 inches (0.8 to 1 m.) in height serves for roasting fish.

How far the *Western Bororo* mode of settlement conformed to the pattern described is not clear. Koslowsky (1895 b) merely speaks of a Bolivian aldea of some 20 huts with palm-thatched walls and roofs and a mat for the entrance.

DRESS AND ORNAMENTS

Children go naked. When initiated, a youth acquires a penis sheath, being thus qualified to witness the masquerades customary at funerals. On festive occasions, a decorative pennant is attached to the sheath. Men generally wear a girdle with shell disks, also a necklace of cotton thread, a bone pin in the lower lip, and ear ornaments. The hair is cut horizontally in front (pls. 90, *bottom;* 91); combs are made of bamboo rods held together by cotton plaitwork with designs. Body hair is plucked from the beard, the eyebrows, the pubic region, and the armpits. Women wear a gray perineal band, or a black equivalent during menstruation; it is attached either to a girdle or to a tight-fitting bark corset.

Except for the exclusively masculine feather head ornaments, labrets, and nose ornaments (pls. 90, *top;* 94), the sexes use the same type of decoration. It is customary for men to manufacture necklaces and ear ornaments as a wedding gift for their brides.

Urucú provides red body paint and wards off insects, but on the São Lourenço River, it is used in moderation. The *Bororo* spread viscous rosin over their bodies, to which they then stick bird feathers, thus sometimes covering all of their arms. This is largely a curative measure against sores rather than a purely decorative device.

The men employ head ornaments to a considerable extent (pls. 92, *left;* 93). There are semicircular fans of arara feathers worn above the forehead; small fans of flexible feathers tied to the forehead so as partly to obscure the vision; and still other arrangements.

Koslowsky (1895 b) ascribes to all his *Western Bororo* the practice of wearing amulets composed of the tooth of a wild canid or a feline species.

TRANSPORTATION

Canoes were quite unknown in the west and in the São Lourenço River region, though on the Vermelho River they occur in recent times. Both sexes are adept at swimming. Men swam across rivers, holding aloft their bows, to which the arrows were tied horizontally, and simultaneously carried their game on their chests, fastened below their arms. Women swam with their burden-baskets full of nuts and roots, tying these receptacles in fours to wooden sticks and guiding them by ropes. On land they carried the baskets on their backs by a bast sling that merged into a tumpline in front.

MANUFACTURES

The men work mainly in their club house.

Spinning and plaiting.—In the family home, men merely pluck from the women's heads the hair subsequently to be made into cordage, and plait cotton bands for feminine arm, wrist, and ankle decorations. They spin both cotton and human hair on a shaft with a shell or clay disk 1½ to 2 inches (3.8 to 5 cm.) in diameter for a whorl. Holding the flock of cotton or several hairs with the left hand attached to the uppermost quarter of the spindle, i. e., the part above the whorl, they roll the longer section of the shaft on the right thigh. The thread thus formed above the whorl is ultimately wrapped around the long section of the shaft. Palm fiber is twisted on the thigh by hand. Often the big toe helps in making thread. Hair threads are plaited into cords worn round the hair of the head or body, but also into wrist-guards. True weaving does not occur (fig. 51, *a*, *b*).

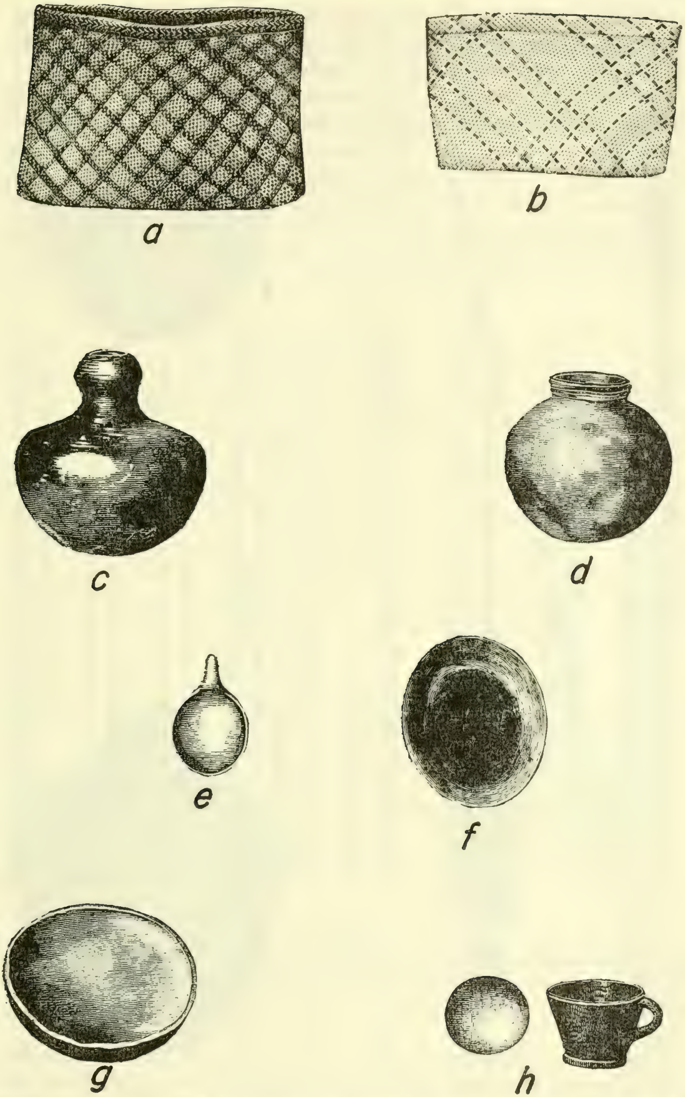


FIGURE 51.—*Bororo* textiles and pottery. *a, b,* Bags with weave and designs the same as mats; *c, d,* water jars (1/7 to 1/11 natural size); *e,* ladle (1/6 natural size); *f,* plate (1/6 natural size); *g,* bowl (1/6 to 1/17 natural size); *h,* cup (1/6 natural size). (After Colbacchini, 1925.)

Feathers.—The *Bororo* practiced tapirage; they plucked out part of the arara plumage, rubbed into the bare spots the sap of some species of tree, and thus produced yellow feathers.

Basketry and pottery.—The women make baskets and plain pots. The water vessels, which sometimes have a neck, are characterized by

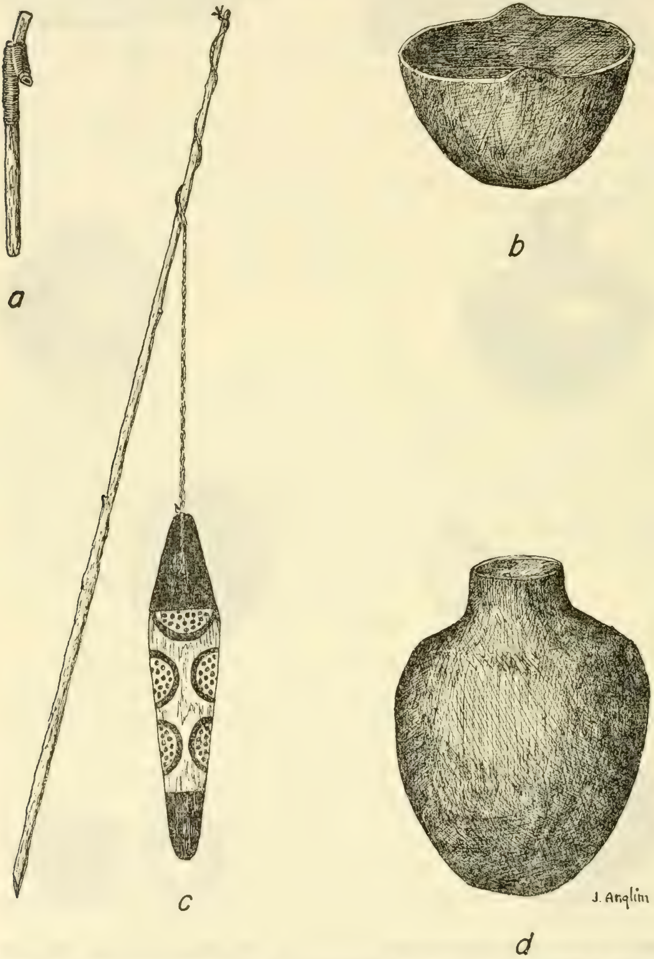


FIGURE 52.—*Bororo* manufactures. *a*, Gouge made of hafted rodent tooth; *b*, *d*, pottery vessels; *c*, bull-roarer. (Redrawn from Von den Steinen, 1894.)

a narrow opening and either a pointed or a spherical bottom. Cooking pots are hemispherical. The wide and shallow dishes now seen, as well as cups with handles, are all innovations due to White influence (figs. 51, *c–h;* 52, *b*, *d*).

Weapons.—Bows and arrows, the principal weapons, vary considerably according to use and represent the acme of *Bororo* craftsmanship. The bow, averaging 6 feet 3 inches (1.9 m.) in length, may exceed 6 feet 6 inches (2 m.), is pointed at the ends, and decorated with feathers; the string is of palm fiber. Arrows, which were from 5 to 6 feet (1.5 to 1.8 m.) in length, have a cane or palm-wood shaft; the heads are of bamboo or bone, and sometimes bear barbs (fig. 53, *a–e*).

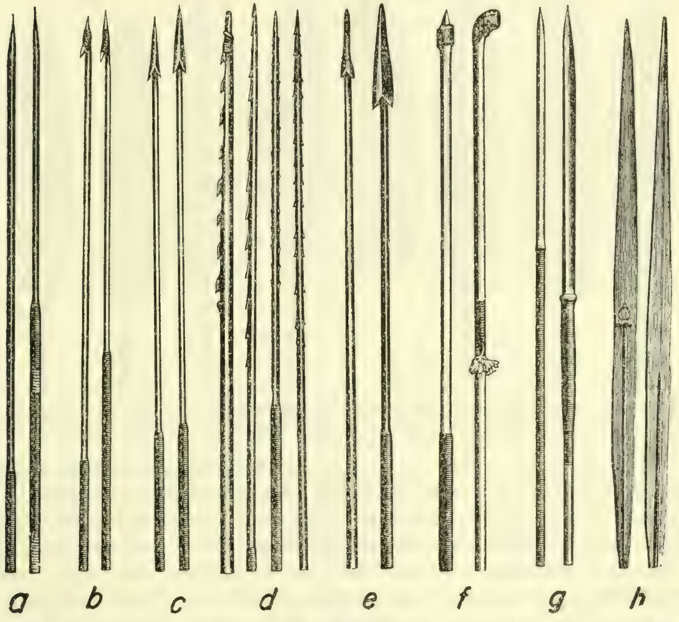


FIGURE 53.—*Bororo* arrow points. *a,* Sharpened rod foreshafts; *b,* rod foreshafts with bone barb attached; *c,* foreshafts with socketed bone point; *d,* foreshafts with lateral carved barbs; *e,* carved wooden points; *f,* foreshafts with knobbed tips for birds; *g,* war arrows with bamboo heads; *h,* large bamboo blades (1/5 natural size). (After Colbacchini, 1925.)

Common hunting arrows have a wooden foreshaft set in a cane shaft, the head (of tapir or monkey bone) being attached to the foreshaft. Arrows used for hunting jaguars have a shaft of seriba-palm wood which rests in a groove of the flat, 2-foot (0.6 m.) long bamboo point (fig. 53, *g*, *h*), being loosely attached with rosin and cord. Bird arrows have a blunt tip (fig. 53, *f*). The groove is chiseled with capybara teeth, which are up to 3 inches (7.6 cm.) long. For releasing the arrow, the archer draws the string with his right middle and ring fingers while the index finger and thumb firmly hold the notch (pl. 86, *top*). The lower part of ceremonial arrows is decorated with feather patterns emblematic of clans (fig. 54); the Porcupine clansfolk, e. g., use a specific arrangement of blue and yellow. All arrows have two spirally twisted feathers, their tops and butt ends being tied on. Wrist-guards are manufactured out of human hair.

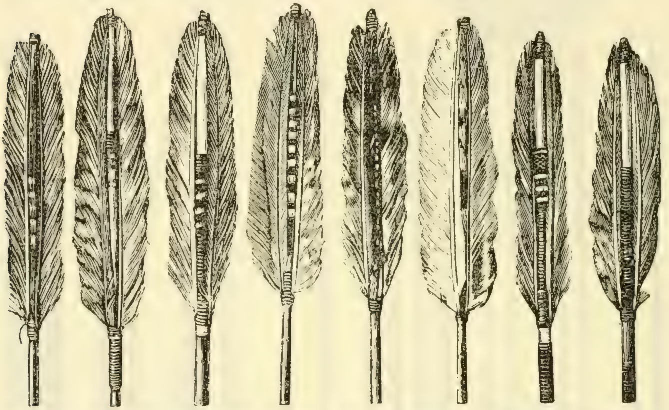


FIGURE 54.—Feathering of *Bororo* arrows. Arched (eastern Brazilian) feathering type. Shafts are decorated with feather tufts. (⅙ natural size.) (After Colbacchini.)

Miscellaneous.—Fire was formerly drilled with a composite shaft of wild Canella and wild cinnamon (*Pseudocaryophyllus sericeus*) wood. Bamboo splinters served to cut meat held in the mouth; the scraper consisted of a capybara tooth mounted on a stick (fig. 52, *a*); and the *Bulimus* conch was used for a plane. Colbacchini (1925) notes that knives and planes are moved toward the body. Von den Steinen (1894) refers to grooved stone axes as things of the past, but they are pictured without comment by Colbacchini (1925).

SOCIAL AND POLITICAL ORGANIZATION

The *Eastern Bororo* are divided into exogamous, matrilineal moieties, respectively linked with the north and the south side of the village. At Kejara these major divisions bear the untranslated names "Chera" and "Tugare," whose phonetic equivalents Colbacchini (1925) renders as "Weak" and "Strong." The moieties have reciprocal duties; e. g., after a death a member of the moiety complementary to the deceased person's moiety must kill an animal in the ensuing hunt, and after a dance the performers are washed by men of the opposite moiety. At Kejara only the Chera had the right to make bull-roarers.

Colbacchini (1925) ascribes seven clans to each moiety; Lévi-Strauss (1936) found six in the Chera, four in the Tugare. Both authors connect the clans with animal and plant species, and at times the linkage is multiple; e. g., a single Kejara clan is associated with the armadillo, the red macaw, and the dourado. It is not clear to what extent such plurality implies distinct subdivisions or whether a homogeneous clan unit is related to the several species in question.

The association does not necessarily involve a totemic name. This, e. g., is lacking in the baaddegaba clan despite its connection with the jaguar, a fish, and a bird. Since in all cases the linked species are freely killed and eaten, Lévi-Strauss (1936) regards the term "totemism" as inapplicable. According to him, a clan ancestor would receive a revelation from a spirit, whose embodiment in such and such a material guise would create the existing bond with a species and might inaugurate a corresponding appellation for the descendents.

As explained under Houses and Villages (p. 420), a secondary dichotomy characterizes the Vermelho River people; an axis perpendicular to the course of the river creates an Upstream and a Downstream half. This division leaves some of the clans intact, but splits up others into an Upstream and a Downstream section.

The clans have specific prerogatives, whence spring notable differences in wealth. Ceremonial bows, arrows, lip pins, and the pennants on penis sheaths bear designs distinctive of particular clans. Again, clans own personal names, dances (pl. 88), and songs. Certain clans contracted preferential marriages with others, apparently on the basis of personal names.

In the Rio das Garças district each village has two chiefs representing the mythical twins, Bakororo and Itubori, of whom the former takes precedence. Both are of the Weak moiety, but belong to distinct clans or subclans associated with the jaguar. Tradition has it that anciently both were of the Strong moiety. In accordance with the matrilineal system, succession is nepotic.

The chiefs are very influential, but lack coercive authority. They announce in the evening what is to be done on the following day, give marching orders, determine the location of clan huts in the settlement, lead in war, receive messengers, conduct various rites, and generally maintain old usage. But the individual tribesmen retain complete personal freedom, checked only by the vivid fear of disapproval. Even murder, instead of being punished, merely evokes a feud.

In the Vermelho district the several villages are under one paramount chief who enjoys greater power, but this may be due to Neo-

Brazilian influence. He owns ceremonial regalia and is privileged to suffocate undesirable newborn infants.

Individual differences in wealth occur mainly with reference to highly prized feminine ornaments, which are inherited matrilineally. It is noteworthy that a Kejara adept at manufacturing grindstones for the community was thereby freed from the necessity of engaging in direct activities for subsistence.

Arrows were the major standard of value. They were presented to a jaguar-killer or to the kinsmen of one's mistresses and bartered against cotton or tobacco.

Etiquette.—No man roasted his own kill, but was expected to pass it on to another. Corresponding procedures obtained for valuable furs and teeth. The skin and teeth of a jaguar went to the nearest relatives of the most recently deceased member of the tribe, the slayer receiving as his reward a decorative bow and arara feathers.

Some regulations naturally fall under the category of taboos and ritual prescriptions. Before a hunt a *Western Bororo* was continent for 4 days, and painted his face with urucú. Women were not allowed to touch arrowheads. In the distribution of important game and fish it was essential for the bari to consecrate the animals, whereupon he might appropriate the choicest pieces.

Sneezing is connected with distant members of one's family.

WARFARE

War arrows were of seriba-palm wood and had a bamboo tip which broke in the victim's body (fig. 53, *g*). A club sword, a little over 3 feet (1 m.) in length, of heavy aroeira wood and lanceolate form, was suspended by a cord from the left shoulder. The spines of meru and tamu fish, attached to bracelets or to the fingers, made effective knuckle-dusters.

The *Cayapó* were the chief enemies of the *Eastern Bororo*, and *Guaná* and *Guaycurú* of the *Western Bororo*.

LIFE CYCLE

Childbirth.—At a São Lourenço child's birth the parents fast for 2 days, taking only a little warm water on the third, lest father and child fall ill. In the Rio das Garças group abstention from food, drink, and smoking lasts from 3 to 5 or even 10 days, the object of the taboo being to make the infant able to bear hunger. The mother does not touch meat for several months. Parents here must not put their hands on their hair during this period—an indirect suggestion of a scratching stick—lest their hair turn white.

Puberty.—At puberty a boy is initiated through the receipt of a penis sheath, which frees him from his mother's custody, entitling him to see the bull-roarer (figs. 52, *c;* 55) and to attend rites from which women are excluded. One chief begins trying on the sheath for the novice, and a sponsor from the moiety complementary to the boy's completes the act. His mother and kin wail at the initiation. He is not permitted to sleep that night, because to do so would be injurious to him.

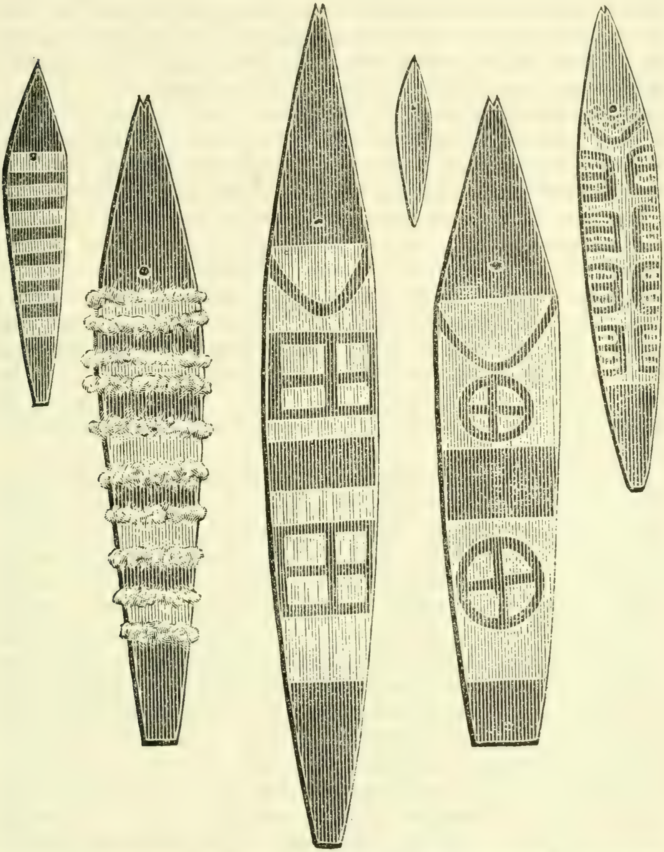


Figure 55.—Bull-roarers with various clan designs. (Approximately ⅛ natural size.) (After Colbacchini, 1925.)

Marriage.—There is much premarital license for girls, who are abducted into the men's club. Apart from moiety exogamy and preferential clan unions, the kinship nomenclature suggests marriage with the father's eldest sister's daughter and with the father's younger sister. The actual occurrence of such arrangements, however, is as yet undemonstrated. On the other hand, sororal bigamy and the simultaneous marriage with a woman and her daughter by a previous husband are observed facts. Residence is matrilocal.

Death observances.—A dying person (das Garças group) is smeared with urucú amid feminine lamentations. The corpse is covered and must no longer be seen by the women and children. Kinsfolk gash themselves, so as to make the blood trickle on the bier. Indoors a long chant begins to the accompaniment of gourd rattles. The dead person is wrapped and tied in a mat with all his possessions, including his broken bow and arrows. At sunset the body is taken to the men's club, where the chiefs chant and shake their rattles all night. After a brief rest in the morning, the song is resumed and continues until sunset. Near the club the young men prepare a shallow provisional grave. The mourners again wail, gash themselves, tear out or cut their hair, and spatter blood on the burial. Until the close of the mourning period, male relations avoid urucú and kinswomen put on a special girdle.

Mortuary rites are combined with other ceremonies. On the eve of the burial the people organize a hunt in honor of the dead, the game being brought to the bereaved and communally eaten. A mourner gives to the valiant hunter of the opposite moiety the hairs he has plucked from his head and a gourd trumpet. Both the hair and the gourd represent the deceased person's soul (aroe). For a fortnight chanting continues in the mourners' hut, then the flesh is removed from the corpse. Young men now impersonate the mythical hero Mariddo (pl. 87), who danced for hours with a heavy bundle on his head, their vain efforts to emulate this feat arousing general hilarity as the parcel falls to the ground. At this juncture bull-roarers are wielded, representing a large mythical beast. The hunter reappears in a disguise as the dead man's representative and the mourners lead him from the club. Women and children would die at sight of either him or the bull-roarer. On the other hand, this is precisely the time for initiating boys deemed old enough. Accordingly, several nude youths plastered with mud represent the mythical animal and, after caressing the hunter, frighten the novices with yells and pelt them with mud before allowing them to see the bull-roarers. Thus the funeral rites involve a boys' initiation.

After a night's chanting, the corpse is unwrapped, the bones spread out, washed in a stream, and then carried to the club, where the souls of the dead are invited to a general repast. Women bring food to the door, but never enter it. The bones are painted with urucú, then the man's clan colors are put on in feathers; a mat screens the decorators from the women brought to join in the songs. The skull is decorated with feathers and shown to the mourners, then all the bones are put into the basket. Once more the kin gash themselves, finally a woman takes the basket on her back, and hangs it from a stick planted near the hut of the deceased. The next morning the hunter, impersonating the dead man, and the mourners bury the basket in a stream at a depth of several meters, with a stick projecting above the water.

On the São Lourenço River the corpse is interred in the woods 2 or 3 days after death, and the ultimate fleshing and disposal of the bones occurs a fortnight later.

ESTHETIC AND RECREATIONAL ACTIVITIES

Art.—The *Bororo* draw hunting scenes in the sand, e. g., an Indian shooting a tapir. They also will dig up sand so as to mark a beast's contours, then fill in the pit with grayish-white ashes, denoting the eyes and a jaguar's spots with dark sand. Bull-roarers are typically blackened at the ends, the intervening space receiving a coat of urucú as background for black designs; Von den Steinen (1894) notes as two main motifs women's bark girdles or bands, and semicircles enclosing dots to represent the skulls prepared for burial. His semicircles are arranged in two symmetrical pairs, but with a single semicircle above them, whereas Lévi-Strauss' (1936) illustrations show merely two vertical series of dot-enclosing semicircles, which differ from Von den Steinen's (1894) sample in being halved by a horizontal stroke. Colored designs figure prominently on decorative arrows, the precise arrangement of the colors and the length of the painted bands being more significant as clan emblems than, say, the use of blue and yellow by itself. The red and black designs serving as clan badges on the pennants of penis sheaths likewise require notice under this head. These decorations are not always wholly geometrical, for the pennant of a Tapir clan sheath displays the realistic shape of a puma. On the skin worn in the *Western Bororo* Jaguar dance, witnessed by Koslowsky (1895 b), a series of filled-in hourglass figures, each pair enclosing a blank lozenge, constitute the chief design.

Games.—Archery and wrestling are athletic sports. The latter, which may beguile the time during a spinning-bee in the men's house, has a definite technique with tripping of the opponent and thrusts at the hollow of his knee. A toy consists of a ball of maize husks decorated with arara feathers.

Musical instruments.—These included deer-hoof and gourd rattles; whistles to signal in hunting; complex trumpets with bamboo resonators, as well as "polyglobular" trumpets consisting of three or four gourds joined with wax; stopless flutes; and the bull-roarer. Drums that now occur are suspect of White derivation.

Dances.—Among the dances may be mentioned that preceding battle, in which the performers bend their knees in position and periodically shout as a chief shakes the gourd rattle. In the *Western Bororo* Jaguar dance, the hunter of a slain jaguar plays the part of the beast, being supposedly possessed by its soul; he wears the skin described above (pl. 89), also necklaces of jaguar claws and teeth, and executes furious leaps while the attending women wail. The object of the performance is to appease the spirit of the animal.

Beverages.—Besides their nut gruel, the *Bororo* drink palm wine: the acuri tree is tapped for its sap, which is allowed to drop into pots or mortars and is quaffed from bamboo vessels. This beverage is drunk by incipient medicine men.

RELIGION AND SHAMANISM

Supernaturalism rests on two systems of belief with distinct and rival functionaries.

(1) There are evil spirits who are the souls of dead baere (plural of bari; see below) or never were anthropomorphic; they normally dwell in the sky, but are able to visit the earth, where they are known as bope, maeréboe, or waikuru. They cause falling stars and illness, can predict future events, but above all claim the prerogative as to various kinds of food, which unauthorized mortals consume under pain of sickness and death. The bope possesses a bari and eats the dishes in question with the bari's mouth. These spirits also appear in dreams and reveal the future, but they take no interest in the social life of the Indians and do not in any significant way figure in any myth.

A bari becomes such through visitations of a bope. He must scrupulously observe the rules laid down to him on pain of loss of power and catching an incurable disease. However, the bope may render him invulnerable and give him the power to hunt game in the guise of a jaguar. The bari may inflict disease and death, but also cures and confers other benefits on the tribe. A client will offer him a cigar, whereupon the shaman calls on the bope, a number of whom led by a spokesman then possess him. In doctoring, the bari smokes the cigar, then the spokesman of the spirits asks why they have been called. One present explains, then the doctor sucks the afflicted parts, expectorating the putative cause, e. g., a beetle, which he scans, announcing his prognosis. Certain feminine diseases, however, he must not attempt treating lest he impair his supernatural powers. Most important of the bari's functions is the "consecration" of the food reserved to the bope—a procedure that ensures to himself the choicest morsels.

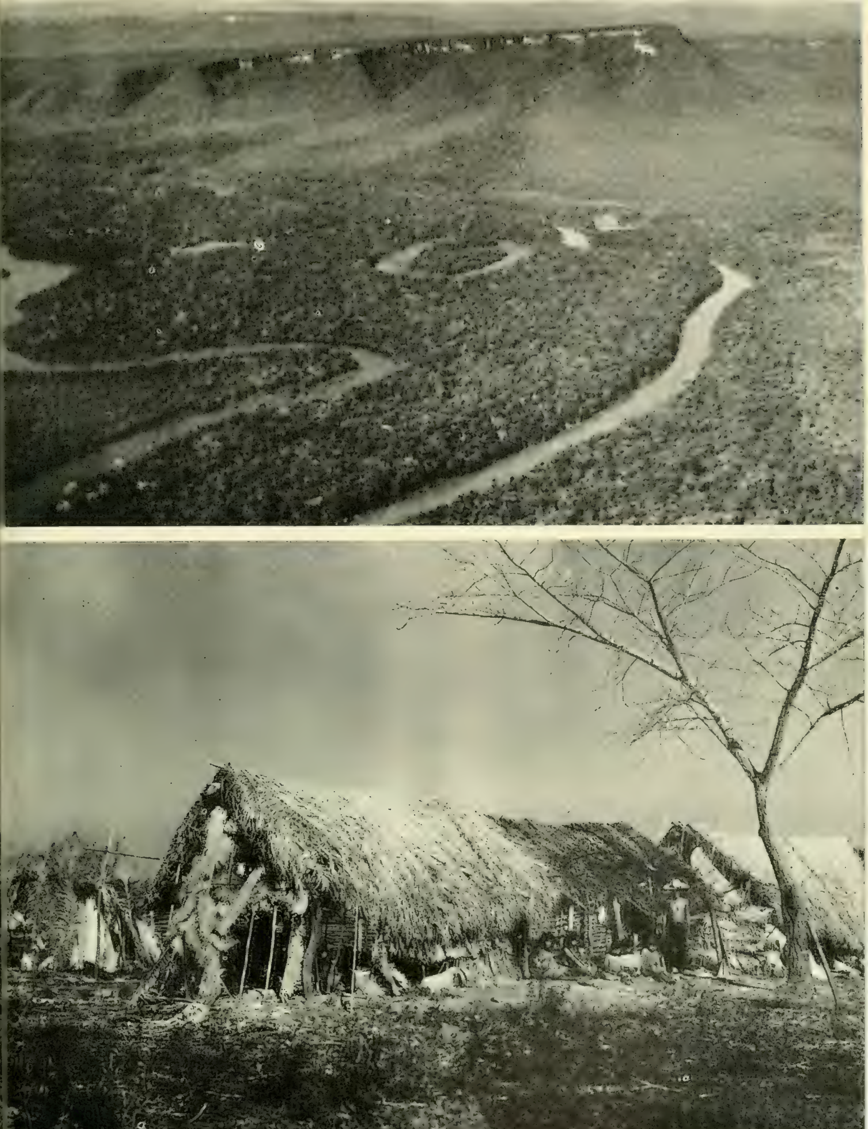


PLATE 83.—**Bororo country and house.** *Top:* Air view of the Chapadão, north of Cuyabá. *Bottom: Bororo* palm-thatched hut. (Courtesy University Museum, Philadelphia.)

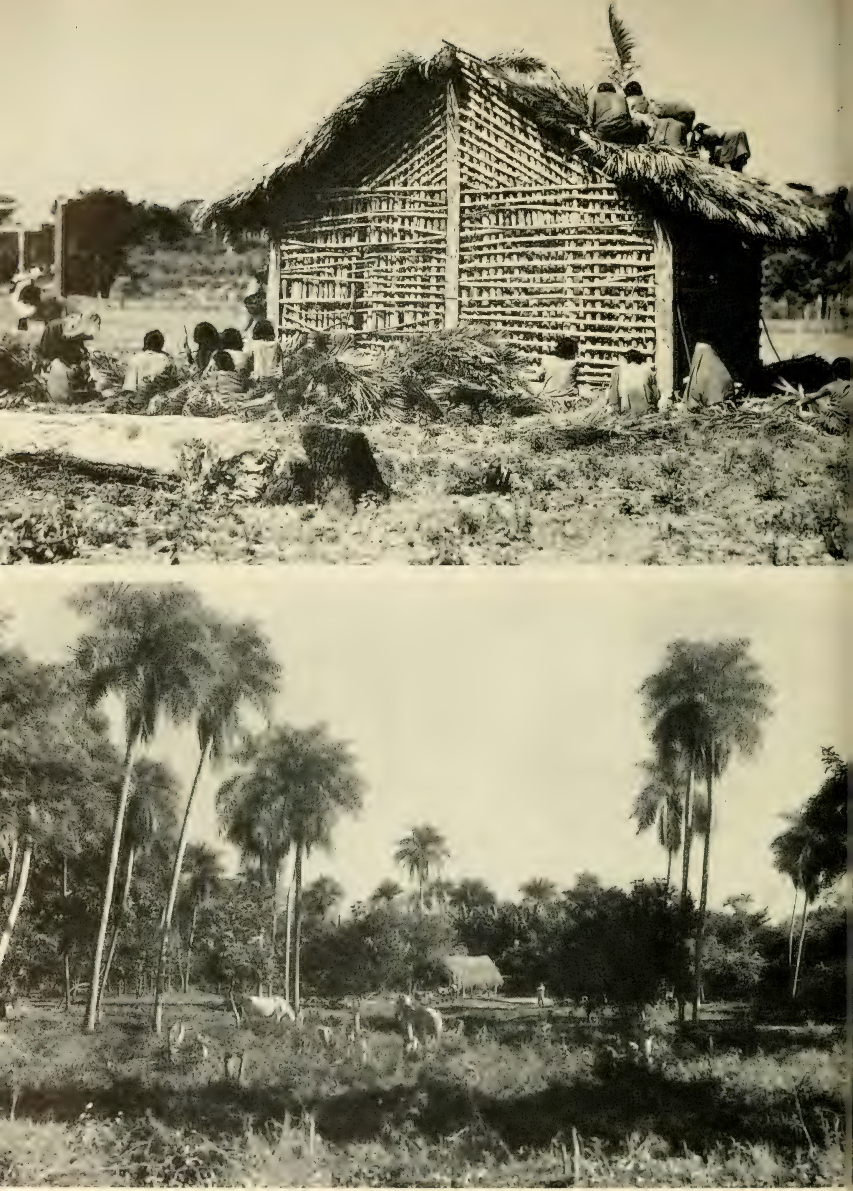


PLATE 81.—**Bororo houses.** *Top:* São Lourenço *Bororo* house. *Bottom: Bororo da Campanha* village. (Courtesy University Museum, Philadelphia.)

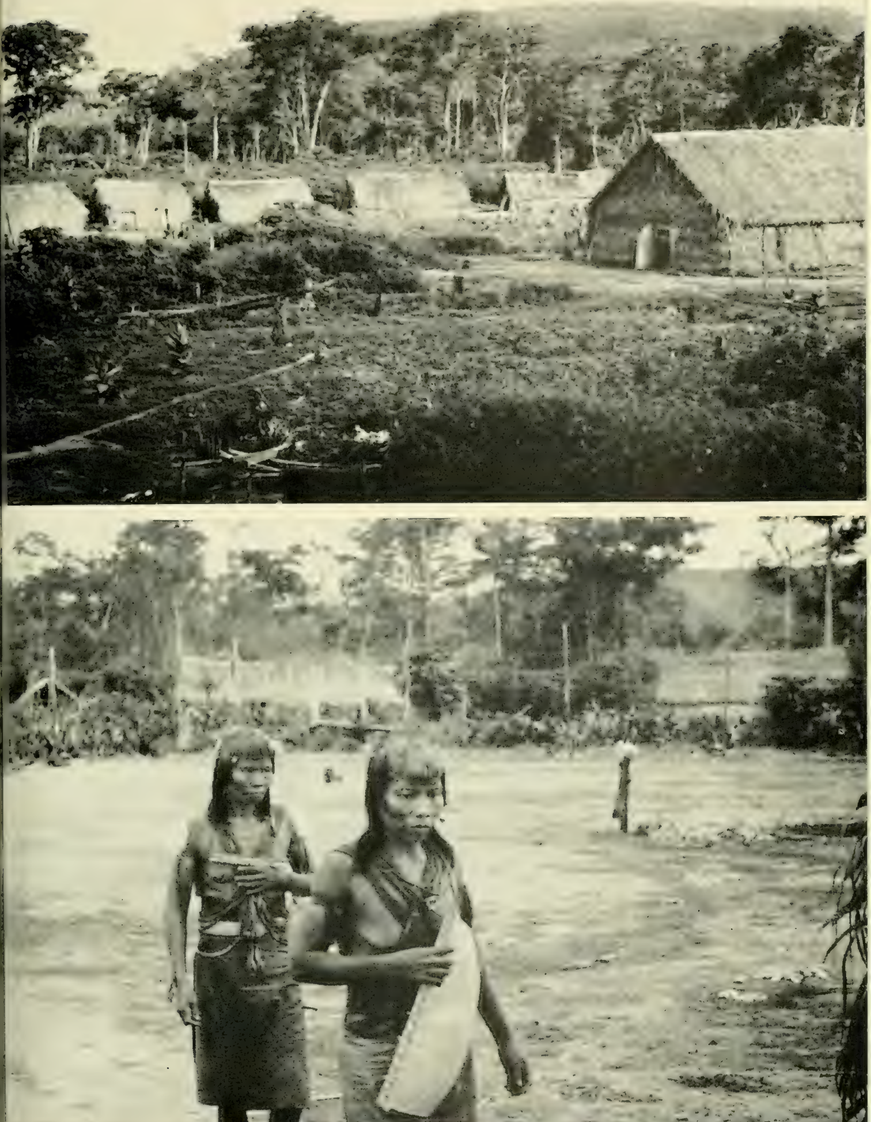


PLATE 85.—**Bororo village of Kejara.** *Top:* Men's club in foreground. *Bottom:* Women in native dress. (Courtesy Claude Lévi-Strauss.)

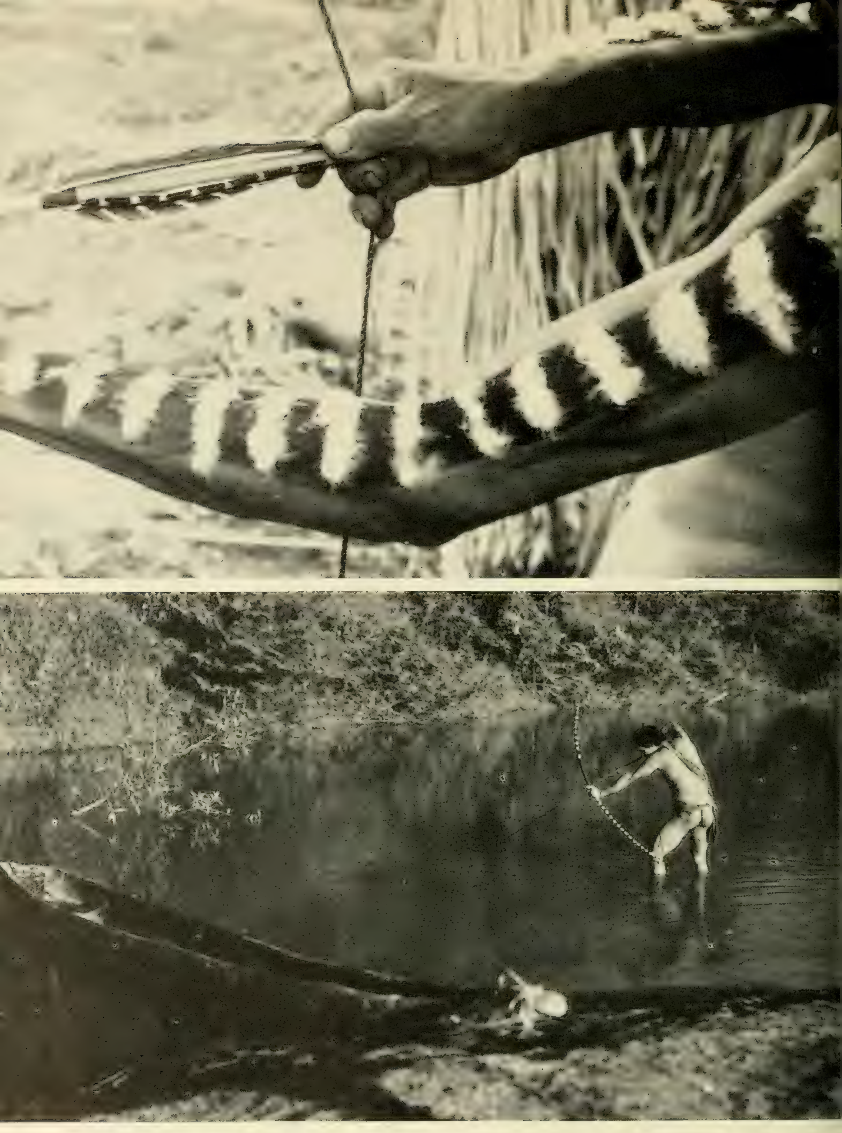


Plate 86.—**Bororo archery.** *Top:* Arrow release. At village of Kejara. (Courtesy Claude Lévi-Strauss.) *Bottom:* São Lourenço, *Bororo* shooting fish. (Courtesy University Museum, Philadelphia.)

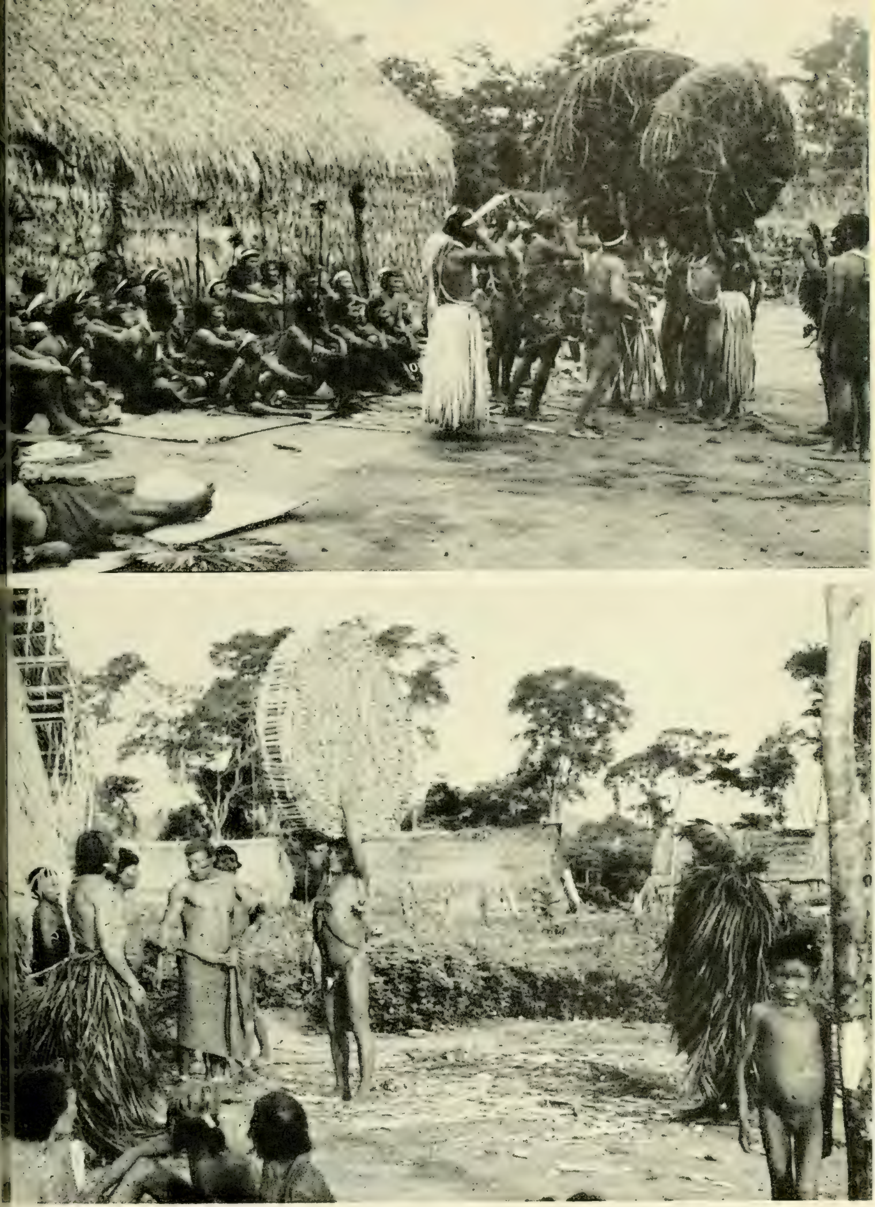
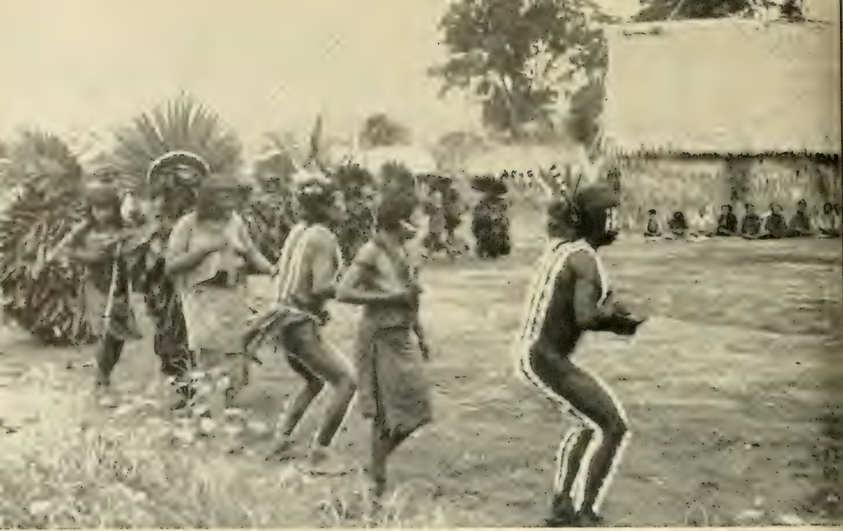


PLATE 87.—**Bororo festival at village of Kejara.** *Top:* Dance of the "Mariddo." *Bottom:* Presentation of the "Mariddo." (Courtesy Claude Lévi-Strauss.)



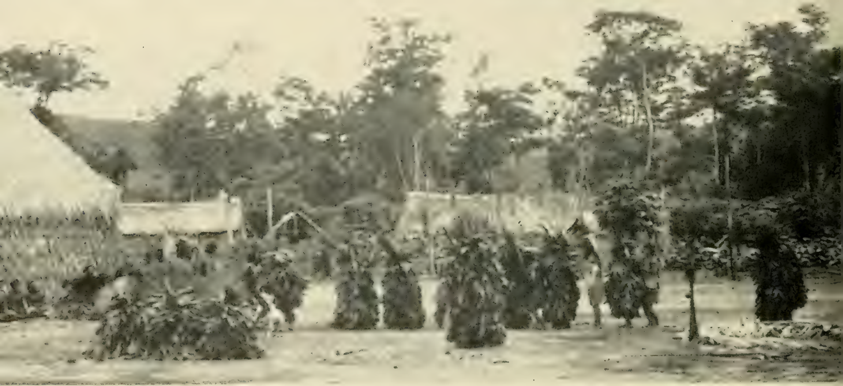


PLATE 88.—**Bororo funeral ceremony.** Dance of the Ewaguddu clan, some dancers in leaf costume, others decorated with down. (Courtesy Claude Lévi-Strauss.)

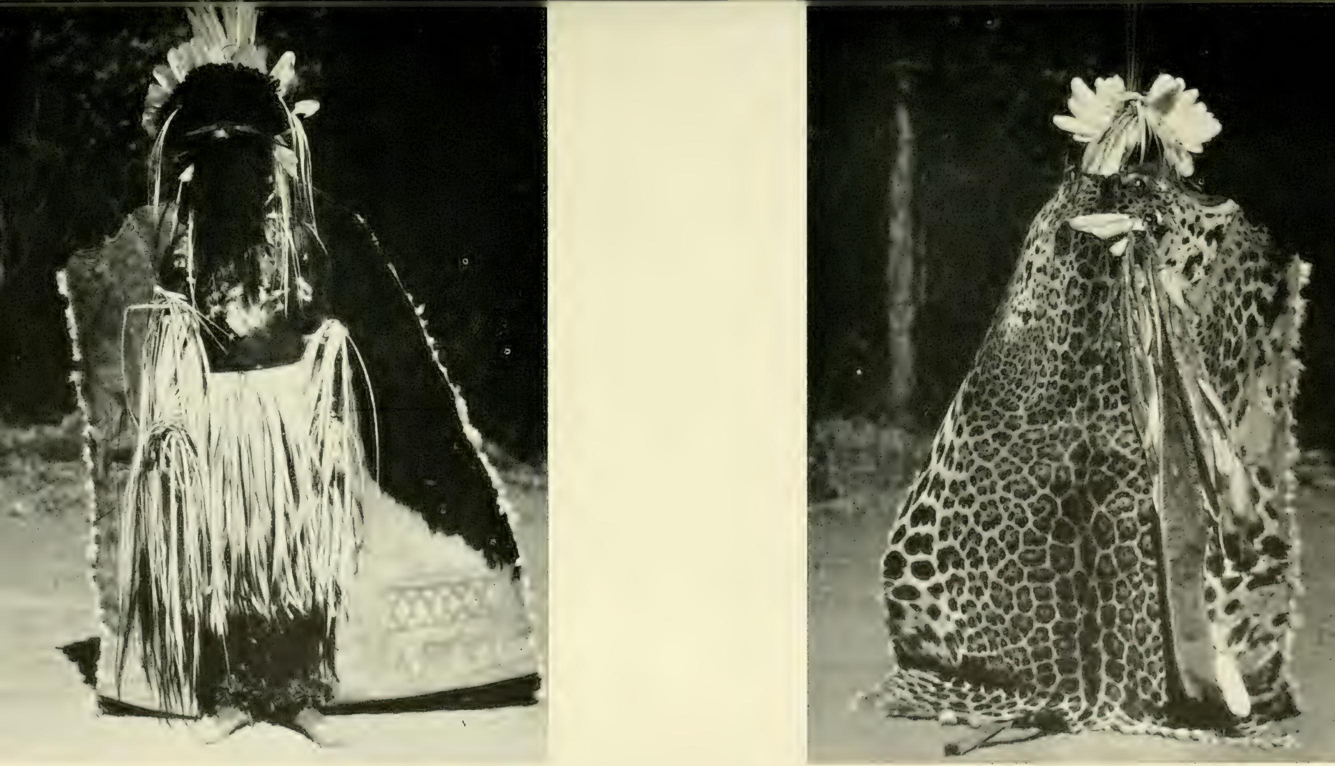


PLATE 89. **Bororo jaguar impersonator.** At da Campanha. Front and rear views. (Courtesy University Museum, Philadelphia.)

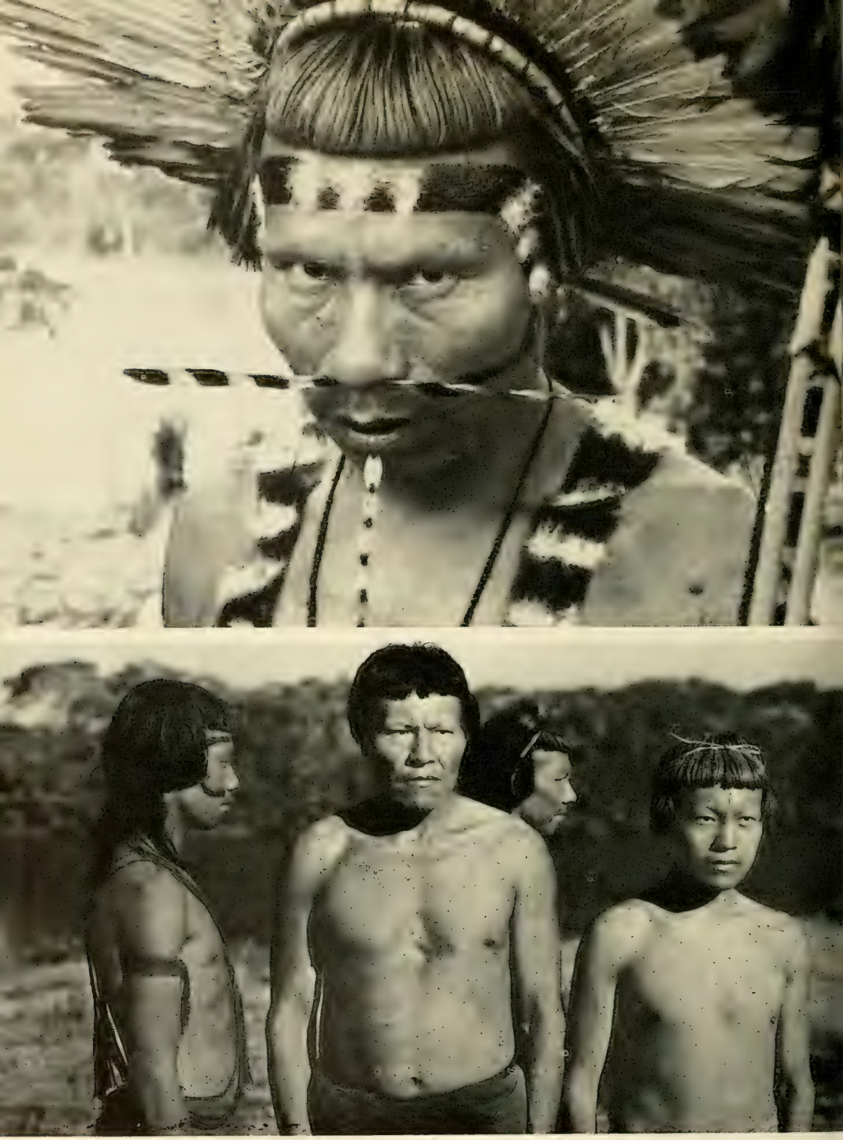


Plate 90.—**Bororo Indian types.** *Top:* Man in festival dress, with feathers through nasal septum and ears and beads through lower lip. Village of Kejara. (Courtesy Claude Lévi-Strauss.) *Bottom:* São Lourenço men. (Courtesy University Museum, Philadelphia.)

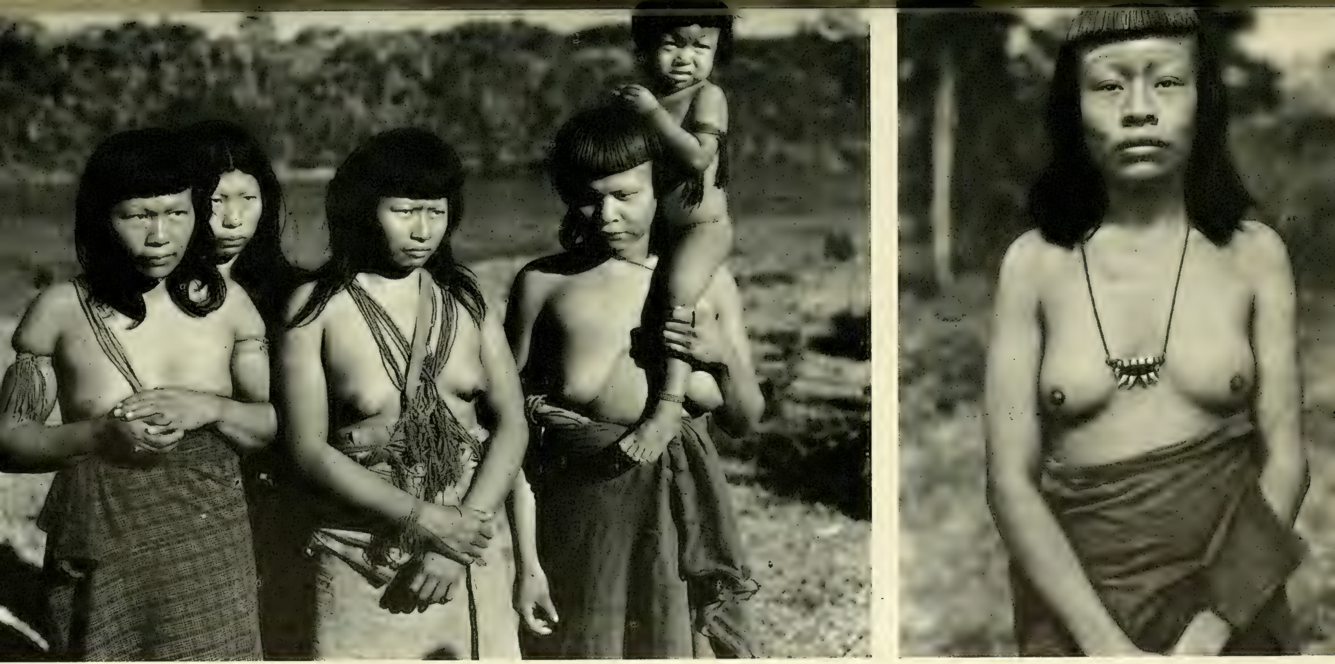
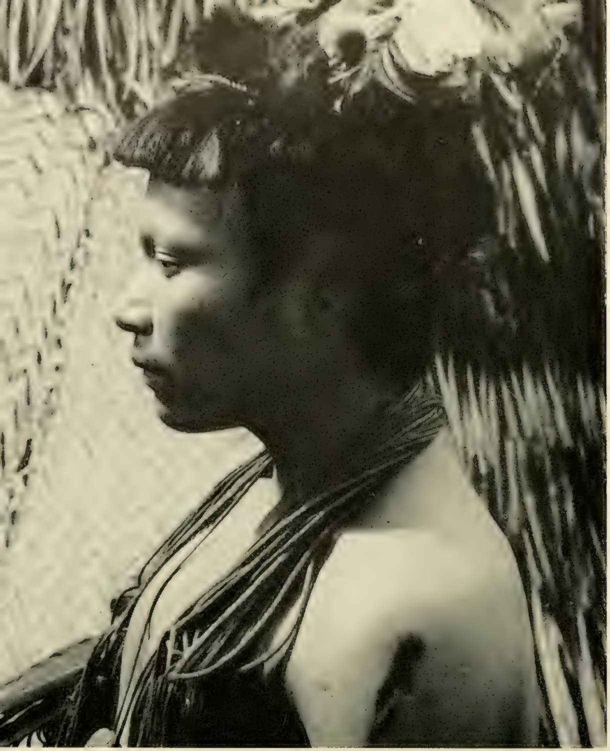


PLATE 91.—**Bororo women.** São Lourenço. (Courtesy David M. Newell.)



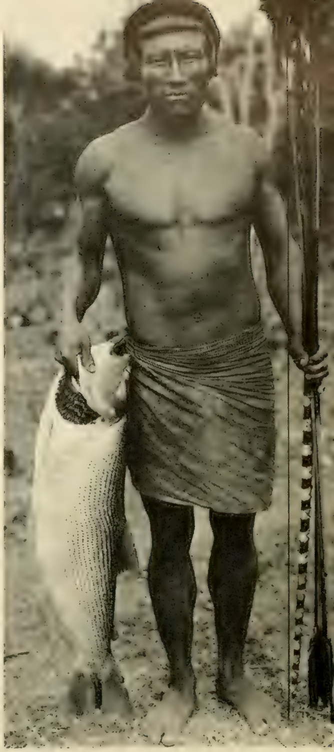


PLATE 92.—**Bororo Indians.** *Left:* Young man at Kejara. (Courtesy Claude Lévi-Strauss.) *Right:* São Lourenço man. (Courtesy University Museum, Philadelphia.)

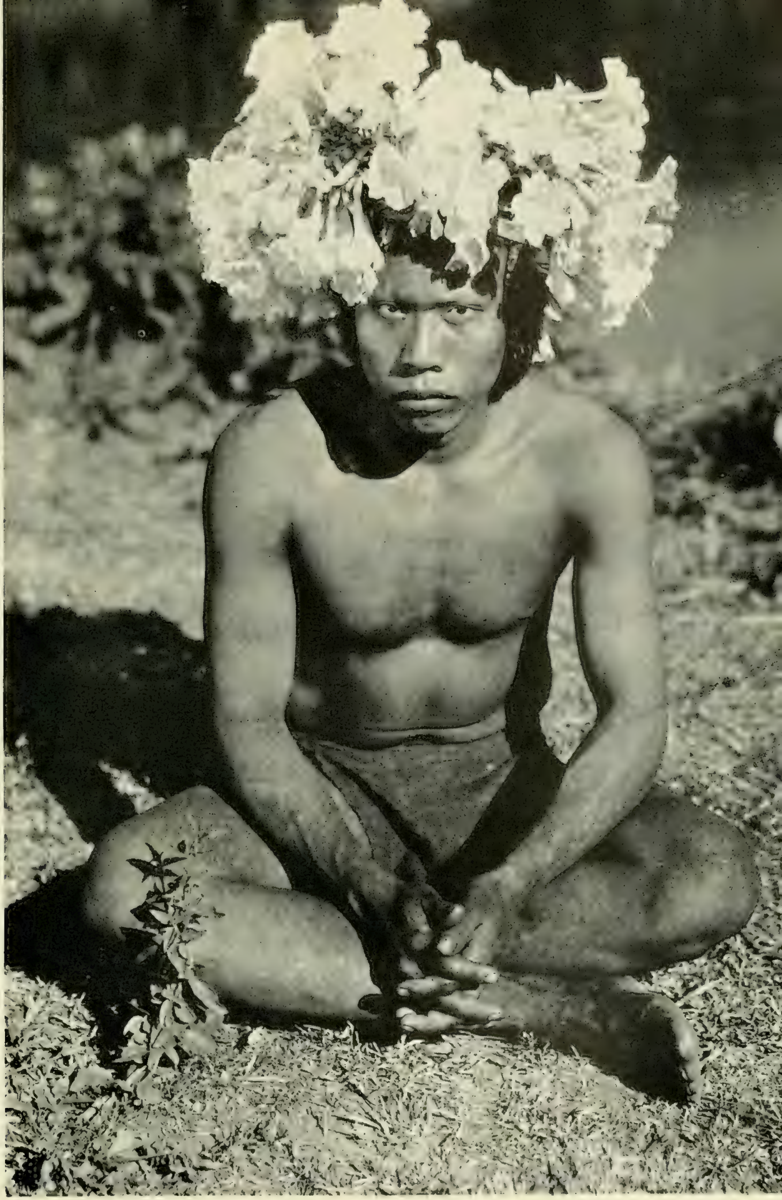


PLATE 93.—**Bororo man.** São Lourenço. (Courtesy University Museum, Philadelphia.)

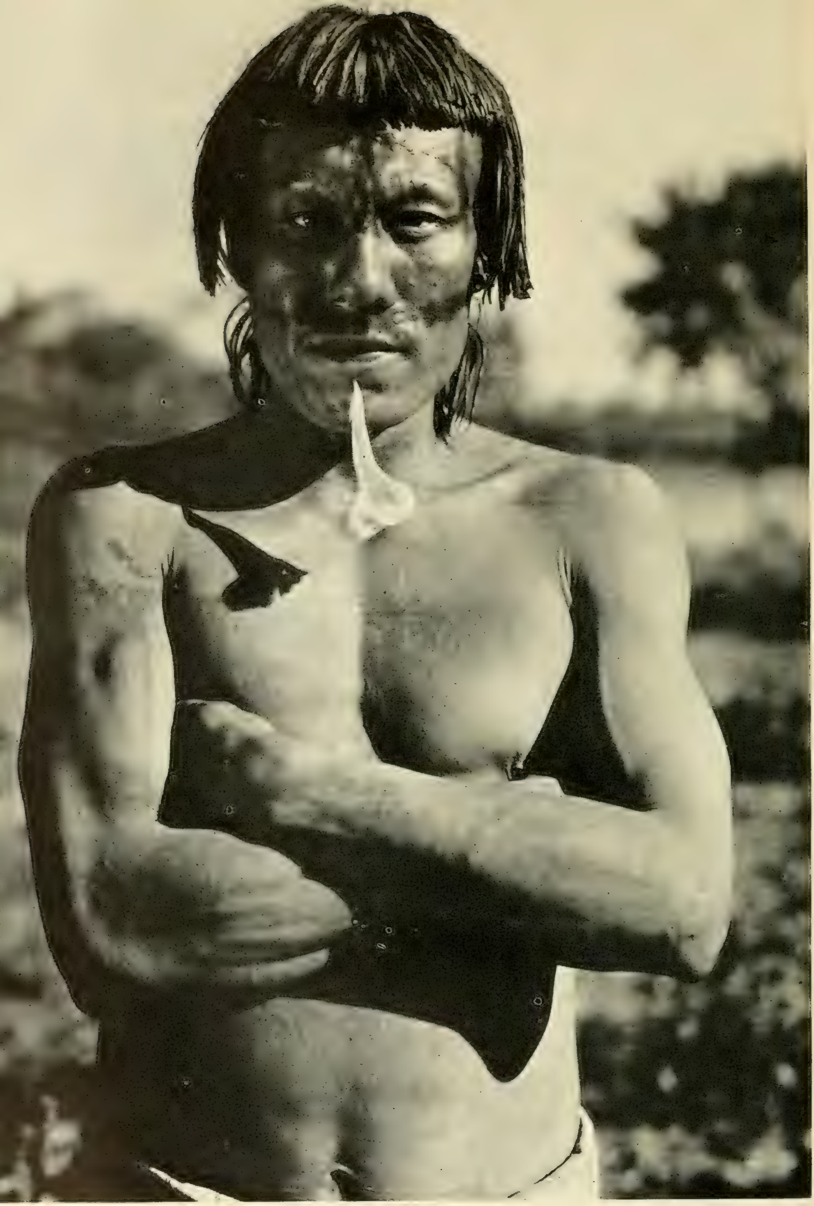


PLATE 94.—**Portrait of young Bororo man.** São Lourenço. (Courtesy David M. Newell.)

(2) Radically distinct is the cult of the dead (aroe). Every aroe is tangibly represented in two ways: by its impersonator at the funeral ceremony, and by a flageolet with a gourd bearing the distinctive clan designs and preserved by the dead person's clansmen in memory of him. The aroe come to the village to eat, drink, or dance; foretell the future; cause illness; and otherwise intimately affect the daily life of the Indians. The aroe commune with the Indians through a medium, the aroettawarari, whom they possess or enlighten in dreams and who may summon them by a special ceremony.

The aroettawarari naturally may not perform the rite of offering food sacred to the bope, but his other duties are largely similar. On behalf of clients he may call the aroe who possess him, led by their spokesman. Treatment of the sick here, too, requires smoking, blowing, suction, and expectoration; and the doctor utters his prognosis. However, in these cases disease seems to be ascribed to the stench emitted by certain aroe. The call comes to the aroettawarari in a manner similar to that followed in the bari's initiation; only the beings that bless him are of a distinct category. Often in the shape of a tapir he allows himself to be pursued by the hunters and even to be killed. Then he resumes his normal form and eats of the slain tapir. Anciently, no woman could be a bari; the office of aroettawarari, however, was open to both sexes.

Notwithstanding the theoretical antithesis and actual animosity of the two types of practitioners, it happens that the same person holds both offices. Tonelli (1927) surmises that this may have originated in villages without a bari, hence deprived of the chance of eating some vital foods unless the power of consecrating them were transferred to the rival office. That the close parallels noted between the two types of medicine men go back to a single origin cannot be doubted.

MYTHOLOGY

The twin heroes, Bakororo and Itubori, figure as exemplars and transformers; Bakororo plays the major part and is associated with a musical instrument used ceremonially. The myth resembles a common Brazilian tale: A jaguar who has conquered an Indian in wrestling permits him to depart in return for the loser's daughter, whom the victor marries. He warns her against his grandmother, a caterpillar, who makes the wife fall dead from laughter. Returning, he performs a Caesarean operation to extract the twins, who burn the old hag in order to avenge their mother. On learning that a falcon has eaten their mother, they kill it. Then Bakororo orders the species to abstain henceforth from human flesh, ordaining what shall be its food; and he similarly fixes the proper sustenance for hitherto man-eating storks, parrots, fish, and snakes. The souls of the dead go either to Bakororo in the extreme west, or to Itubori in the extreme east.

Sun (Meri) and Moon (Ari) are another pair of brothers, but figure largely as tricksters. Thus they put out the Indians' fire, which, however, is salvaged by a toad. The Indians pursue the mischief-makers, who climb trees, and kill Moon, who has sought refuge in a low tree and is eaten by a canid. Sun kills the canid and resuscitates Moon from fragments of his bones. This revival motif recurs in different contexts. In one game Moon kills Sun, but cannot restore him. However, Sun rises by his own power and turns into a red arara. Moon vainly looks for him and nearly starves, when Sun transforms himself into a fish, letting Moon harpoon him. Finally, Sun and Moon neglect the Buriti clansmen's warning, and break their hosts' bottles. They are pursued, caught, and blown skyward by their captors, who bid them remain above.

Other myths describe a flood caused by an angry spirit and the jaguar's swallowing of a monkey, who cuts his way out. In one tale boys climb to the sky on a rope, which they cut in order to prevent their mothers from following. As a penalty the boys must remain in the sky, their eyes becoming the stars.

The ascent to the sky by a rope or creeper is widespread in South America, being found, e. g., among the *Cariban Taulipang*. In the Twin story, the pacification of the jaguar by the offer of a woman, her death through an older kinsman of the husband, the post-mortem extraction of the heroes, and their revenging the woman's death recall *Guaraní* motifs, as well as the *Bacaïri* tale of Keri and Kame. On the other hand, these *Bacaïri* names and their linkage with Sun and Moon, respectively, rather suggest the second *Bororo* myth of a pair of brothers.

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THE GUAYAKÍ

By Alfred Métraux and Herbert Baldus

HISTORY AND GEOGRAPHICAL SITUATION

The elusive *Guayakí* who roam the forest of eastern Paraguay represent one of the least-known tribes of South America (map 1, *No. 9*). The *Cainguá* and the *Guaraní*, who for centuries have waged a war of extermination against them, consider them as hardly human and have spread fabulous stories about them. Some of these tales are strangely reminiscent of Charlevoix's (1757, 2:286–288) description of the *Cayguá* (*Cainguá*). (See The *Caingang*, p. 445.)

The *Guayakí* are mentioned for the first time by Pedro Lozano (1873–74, 1:415–421), who gives a short but accurate description of their culture. In the 18th century, the Jesuits of the Mission of Jesus sent out small parties of *Guaraní* Indians to capture *Guayakí* in order to bring them up as neophytes in their "reductions," and by the middle of the century there were 30 *Guayakí* in the Mission of Jesus, but the efforts made to settle whole bands remained unsuccessful. Father José Insaurralde was the first to notice the close relationship between the *Guayakí* language and classic *Guaraní*, a relationship amply proved by modern vocabularies and texts. Several manuscripts on the *Guayakí* language, once part of the archives of the Mission of Jesus, seem to have been lost (Hervás, 1800–1805: 194–196).

Sad experience has made the *Guayakí* exceedingly shy of civilization. They come near Paraguayan settlements only to steal iron tools or, prompted by hunger in winter, to kill a cow or a horse. Such acts provoke bloody reprisals. As yet no one has observed the *Guayakí* in their original habitat, so that most of our knowledge of their culture rests on objects found in abandoned camp sites and on the memories of *Guayakí* children made prisoners during punitive expeditions. Many valuable data have come from a German settler, F. C. Mayntzhusen, who managed to keep a few *Guayakí* on his plantation. Vellard, who spent several months in vain attempts to get in touch with the *Guayakí* but who was obliged to abandon his project after a skirmish with one of their bands, wrote a book (1939) about them based on information he gathered from captives and from the literature. A recent publication by M. Bertoni (1941) contains new and interesting details obtained from a young *Guayakí* adopted by the author.

Northern and southern groups speak the same dialect but differ in minor aspects of material culture. Although the former keep equally aloof from civilization, their material culture has been slightly affected by indirect contact with the Whites. They have discarded stone axes for steel hatchets and use iron pots and tin cans instead of wax-smeared baskets.

The *Guayakí* live in the dense forests of eastern Paraguay where hills and mountains separate the tributaries of the Paraguay River from those of the Paraná River (lat. 26° S., long. 55° W.). Formerly, they were distributed from the Monday River in the north to the outskirts of the forest in the south and west, and to the Paraná River in the east. The constant encroachments of lumber camps and maté farms have forced them to retreat to the less accessible mountains and hills of the Caaguazú ranges. The largest *Guayakí* group roams the region of Tayao, between the Paraguayan villages of Ajos, Carayaó, San Joaquín, and Caaguazú. A smaller group lives near the Paraná River, between two of its tributaries, the Monday and Nacunday Rivers. The southernmost *Guayakí* inhabit the region of San Juan Nepomuceno, and wander in the forested plains between the Tembey and Teyucuaré Rivers (near Encarnación).

On the basis of hearsay or unreliable ethnological evidence, some authors maintain that there are two different kinds of *Guayakí* in the Paraguayan forest, but this has never been confirmed. Mayntzhusen (1924–26, p. 316) reckoned the total number of the *Guayakí* to be 800 or 1,000 in 1910. In 1920 only 500 were left after a severe influenza epidemic.

CULTURE

SUBSISTENCE ACTIVITIES

Farming.—Modern *Guayakí* depend entirely on collecting, hunting, and fishing; according to our best authorities, they are ignorant of any form of agriculture. Their economy, however, may have been different in the past when they enjoyed greater security, for Lozano (1873–74, 1: 415) states that the *Guayakí* "sow maize, but their crops are small because they eat the green ears before they are ripe." The *Sirionó*, who in many respects resemble the *Guayakí*, also were regarded as nonagricultural people until in recent years it was discovered that they did some farming.

Collecting wild foods.—The fruit and heart of the pindo palm (*Cocos romanzoffiana*) along with honey and larvae constitute their basic diet. When the *Guayakí* find a pindo grove they camp by it until they have exploited all the trees. They eat the terminal shoots (palm cabbage) raw or roasted, and extract a coarse flour from the old trunks by smashing the fibrous wood with the back of a stone ax. The pounded mass is sifted through a crude square sieve, a mat made of bamboo splinters or *Carex* stalks. The flour, which has only slight nutritive value, is kneaded into balls; these are consumed raw or dried by the fire. The orange trees introduced by the Jesuits have multiplied into large groves which furnish abundant fruit.

The *Guayakí* seek honey so eagerly that it has been regarded as basic to their economy. Their trails are always marked by signs of this search, and several of their few implements are employed for gathering honey. To reach the honeycombs on tree tops, they use ropes 30 feet (10 m.) long made of vegetable fibers mixed with human and animal hair. They climb trees with great agility and have invented many devices to approach the bee nests. For instance, they bend two young trees into an arch and suspend a seat from them at the level of the beehive. To remove the honey from the hollow trees, they use stone axes, which they carry hanging from their wrists when climbing. With these axes they can fell hardwood trees 2 feet (60 cm.) in diameter.

The *Guayakí* relish the long, fat grubs of passalid beetles, which grow in decayed pindo palms. To increase the supply, they fell and notch the trees with their axes, and the eggs, which the beetles lay in the holes, soon hatch in numbers sufficient for a substantial meal.

Their digging sticks are 2 to 3 feet (60 to 90 cm.) long with a flat oval end and are used mainly to open the pindo trees and to dig out tubers. Occasionally, they may serve as weapons or as gouges to extract larvae from the decayed trunks.

The hot months from September to February are the best for gathering food. During this season several edible fruits in addition to oranges ripen in the forest, the honey increases, the larvae reach their largest size, the birds lay eggs, and the fish go up the Paraná River to the small streams to spawn. The "lean months" from March to August are the principal ones for hunting.

If they are in a waterless region, the *Guayakí* dig wells from 15 to 20 feet (4.5 to 6 m.) deep. They also drink the water which collects in bamboo and other plants.

Hunting.—The chief hunting weapons are the bow and arrow. When shooting, some *Guayakí* rest the lower end of the bow on the ground, hold the staff with the left hand, and pull the string with the right hand. They are able to hit a mark at a distance of 300 feet (91 m.). A cord of human hair is wrapped around the left wrist as a guard. Small animals are clubbed to death. Tapirs are caught in pitfalls dug on their runs. The sides of the pit are lined with mud which, when dried hard, prevents the animal from climbing to the surface. The hunters, who observe several food taboos, hide near their traps to be on the spot as soon as the animal has fallen. Mayntzhusen regards the complicated jaguar traps "as their highest technical achievement."

Fishing.—The *Guayakí* shoot large fish with the bow and arrow and catch small ones by hand. They also catch them in conical baskets which they place along a dam. According to Lozano (1873–74, 1: 417), they build stone dams across rivers, poison the water with a creeper crushed between two stones, and collect the drugged fish in sieves. To drug fish, they also use several kinds of leaves, among others those of one of the Lauraceae.

When they find a stream full of small fish, they make a barrier of takuapi (*Merostachys clausenii*) extending to the bottom of the river and long enough to encircle the fish. The barrier is pushed toward the margin of the river or toward another barrier where the fish are cornered.

Domesticated animals and pets.—The *Guayakí* keep all kinds of pets, which they fondly carry when traveling. At night these animals are tied to trees or confined in small cages. Few South American Indians eat their pets, but the *Guayakí* seem to consider the coati, of which they always have a greater number, as food reserves for the lean winter months. This was noted by Lozano (1873–74, 1:415): "They have the foresight to domesticate a few wild pigs and to raise some animals called coati which they kill for food." Hunting coati is one of their favorite sports. Men and women join in drives to tree a coati, which they shoot with arrows or seize when it tries to escape. They wrap their arms with cord as a protection against bites.

CAMPS AND HOUSES

The *Guayakí* never camp near streams because of the mosquitoes and because they fear that the murmur of the water would prevent their hearing the approach of an enemy. Instead, they seek a heavily forested area where they can make a fence by cutting and breaking the branches and bushes. Within this enclosure each family establishes itself by its own fire. If there is danger of jaguars or of White people, the approach to the camp is cleared of vegetation to avoid surprise attacks. When rain threatens, they crawl under rude shelters constructed of palm leaves thrown over a rectangular or triangular wooden frame attached with creepers to small trees or to forked sticks stuck into the ground. The waterproof thatch forms a roof and a wall on three sides. According to Lozano (1873–74, 1:417), the *Guayakí* sheltered themselves behind mats used as windbreaks. Sometimes they built crude huts with walls of bamboo. The men usually lie on straw mats about 4½ feet (137 cm.) long and slightly narrower. The women lean against their husbands or their basketry knapsacks. Children sleep around the fire, sometimes on small mats. When the weather is cold, they often lie in a shallow pit dug in the ground.

Unless it rains, the *Guayakí* seldom stay more than one night at a camp, and they never go back to an old camping ground which they consider "ine," that is, "stinking." In order to perform the necessities of nature, they retire out of sight and hearing of the others.

DRESS AND ORNAMENTS

Both sexes go about nude, though old women may protect themselves from the cold by covering their backs with a square piece of cloth, and men sometimes suspend a bird skin from their shoulders.

Men wear a tonsure cut with a bamboo blade; the crown of hair narrows over the forehead and the ears and widens at the back. Women let their hair hang loose on their backs or fasten it around their heads with a bark strip. Lozano (1873–74, 1:416) tells us that women shaved their heads after marriage. He also says that many *Guayakí* women cut their hair when it reached a certain length and used it, together with monkey hair and palm fiber, to make ropes. On festive occasions and during their fights, men wear high conical helmets of the skin of newborn tapirs and jaguars, surmounted by tufts of hair or coati tails (pl. 96). They also glue bird down to their faces and bodies.

As ornaments, men (according to Mayntzhusen, only women) wear a frontlet or a necklace of animal teeth, mainly monkey and tapir, and monkey leg and arm bones and armadillo tails. According to Lozano (1873–74, 1:417), women's necklaces were composed of fruit shells (aguai fruit).

From the time of puberty, the men wear a bone or wooden labret in their perforated lower lip. The stone labret mentioned by Lozano has never been reported in our time. The perpendicular lines scratched across the chest and stomach of girls who have come of age remain as indelible tattoo marks though no pigment is rubbed into the wounds. Girls' legs also show some scars which are made during early childhood. Both sexes paint horizontal stripes across the face, the upper arms, and the chest with a mixture of rosin and charcoal—some sources say of wax. Warriors are entirely blackened.

TRANSPORTATION

When the *Guayakí* travel through the bush, the men go in front carrying only their bows and arrows and sometimes a child on their shoulders if the terrain is difficult. Children capable of walking follow while the women form the rear guard, carrying the family possessions in huge basketry knapsacks held by a broad tumpline passing over the forehead. On top of the knapsack they place the babies and the pets. Infants are transported in a special sling, woven of fibers, or in a large pliable knapsack.

MANUFACTURES

Basketry.—*Guayakí* industry is rudimentary. These Indians make ovoid baskets which are waterproofed with a thick coating of wax mixed with charcoal (pl. 95, *l*, *m*). They also plait crude palm leaf (pindo palm) knapsacks in which to carry food and their few possessions (pl. 95, *f–h*), flexible basket pouches in which to store feathers and other small objects, sleeping mats, fire fans (pl. 95, *e*), and sieves.

Weaving.—The *Guayakí* weave very crude fabrics with the fibers of a wild nettle (*Urera baccifera*). The cloth is intermediate between basketry and a textile, as the weft and warp may be simply crossed by hand, or they may be knotted together, or coiled spirally. The loom consists of two parallel lines of small sticks stuck in the ground.

Some fabrics have simple ornamental bands produced by alternating dark and light stripes. Baby slings and cloaks worn by old women are made by this simple technique.

Rope making.—Rope is made of human or monkey (*Cebus*) hair, sometimes mixed with plant fibers (pindo, nettle, bamboo, etc.) (pl. 95, *j*).

Pottery.—The exceedingly primitive pottery of the *Guayakí* is limited to a single type of vessel, characterized by a broad belly, a wide opening, and slightly conical base (pl. 95, *n*). Most of the pots are small; the largest specimens are not more than 7 or 8 inches (15 or 20 cm.) high. The clay is tempered with charcoal. During the firing, nobody must look at the pot lest it crack.

Small pots are used either for drinking or as containers for pigments; the larger ones are used for cooking.

Weapons.—The southern *Guayakí* make their bow staves from the wood of the *Cocos romanzoffiana;* the northern bands, in addition, use the hard mbocayá palm wood (*Acrocomia totai*). The bows are comparatively long, 6 to 7 feet (1.8 to 2.1 m.), have an oval cross section, taper at both ends, and lack terminal notches for the strings. The bow string is generally made of samuhu (*Ceiba pubiflora*) fibers or of caraguatá or guembé fibers.

War or large-game arrows are tipped with bamboo blades; today some iron points are used. Other hunting arrows have long sharpened wooden heads, which vary widely—some are barbed on one side, some on both, some have a triangular cross section without barbs, and others have several ornamental carvings (pl. 95, *p*). Bird arrows end in a wooden knob. Arrow shafts are made of bamboo (pl. 95, *o*). The feathering is of the arched or bridged type ("tangential"), identical to that of the *Cainguá.* Strips of guembé bark are wrapped around the shaft where the head is inserted.

A combat weapon, described as a spear, is a pole from 6 to 8 feet (2 to 2.5 m.) long with both ends pointed or with one end slightly enlarged. Mayntzhusen described it as a club used especially for intertribal duels. The men swing the club downward, holding it with both hands. Perhaps it serves both as a lance and as a club.

Implements.—Axes (pl. 95, *i*) have an almond-shaped stone blade (diabasic pebble) inserted into the bulging end of a wooden shaft.

The cutting edge of the blade is shaped by grinding. One of the main *Guayakí* tools is a chisel made by hafting a rodent incisor (aguti or capivara) in a bone handle. Like all South American Indians, the *Guayakí* cut by drawing the blade toward the body. Chisels are carried strung on a cord, like bunches of keys. Certain kinds of woodwork, for example the socket for an ax, are done with a chisel of tapir bone. Planes are made of broken or perforated snail shells (*Bulimus*). Sharp bamboo (*Chusquea ramossissima*) blades serve as knives.

Fire making.—An arrow shaft tipped with a short stick and twirled between the hands constitutes the fire drill. The hearth stick has a pit and lateral groove. Vellard (1939) was told that the *Guayakí* produce fire by striking pieces of fine-grained quartzite together so that the spark falls into tinder made of the samuhu (*Ceiba pubiflora*) down. This method, known only in Tierra del Fuego, is so unexpected in Paraguay that the statement must be accepted with reservation. The *Guayakí* use pieces of takuapi wood as torches.

SOCIAL AND POLITICAL ORGANIZATION

The *Guayakí* roam through the forest in small hordes comprising, as a rule, about 20 individuals. Bands are independent units which rarely come together, although they may range near one another and even gather in orange groves or other places where food is plentiful.

Lozano (1873–74, 1:417) says that the only chiefs were men with several daughters whose husbands lived in the band of their father-in-law. Recent investigations confirm Lozano's statement, but other factors, such as hunting ability or physical strength, also are said to determine chieftainship. The band leader serves as guide and adviser. According to Mayntzhusen, leaders challenge one another to duels fought with cudgels. The band of a defeated chief disperses or follows the victor. Certain chiefs are reported to be inveterate cannibals, who prey on the members of their own (!), as well as of neighboring, bands. Most sources agree that the *Guayakí* are cannibals, but the evidence is not always convincing. The endocannibalism described by Mayntzhusen is open to strong doubt and requires careful checking. Lozano and modern authors report that woman stealing is a common practice and causes numerous feuds between bands.

Property.—When the members of a band cut down a palm tree, it is regarded as their exclusive property; such trees are referred to as "those cut down by the head of such and such band." Band members do not eat the larvae in palm trees belonging to another group or touch the tapir fallen in their neighbor's pitfall.

LIFE CYCLE

Childbirth.—To give birth, a woman, accompanied by a male and a female assistant, withdraws from her husband's fire. The man supports her and later severs the navel cord and massages the woman's genitals. Afterward, he pours cold water over the newborn child to establish a lifelong relationship that, in the case of a female child, precludes his marrying her. The female assistant (upiaré) then massages the child and begins to deform its head by pressing it between her hands to make it round. This operation is repeated by the mother during the next 3 days. The afterbirth is buried. The father, meanwhile, keeps to the woods. Both mother and father are forbidden to eat meat and honey, lest the child vomit and perhaps die. After 3 days both parents ceremonially bathe to ward off the jaguar demon; they are then considered safe and may resume normal life. The child is given the name of any food animal—not only vertebrates, but even the larvae of wasps, bees, and beetles—except those forbidden to women, such as ducks. The mother chooses the name of an animal eaten during late pregnancy, from which presumably the child's body was formed. The root of the words for name and for body is the same.

Puberty.—During their first menses, girls refrain from eating various kinds of animal meat. Afterward they are washed ceremonially, and perpendicular incisions are cut across their breasts and abdomen.

Boys have the lower lip perforated when they reach puberty. The operation is performed with a sharp tapir bone. Charcoal is rubbed into the wound, and a leaf is applied to prevent suppuration. At first, the young initiate wears a short piece of bamboo to keep the hole open; later he substitutes a real labret.

Marriage.—There is little information on marriage customs. According to Mayntzhusen alone, young girls marry elderly men and young boys mature women. Residence is strictly matrilocal. Polygamy is rare, and is the privilege only of chiefs and good providers. Yet matrimonial ties are brittle, and many women either desert their husbands or have secret adventures. The wronged husband contents himself with thrashing his unfaithful consort. M. Bertoni (1941, p. 39) was told by his informant that a husband who did not bring food to his wife was finally killed by other men of the group.

Death observances.—Old people and the sick who cannot follow the band are killed. The *Guayakí* bury their dead in a sitting position. The arms are tied against the chest, the feet are fastened together with a rope, and the back rests against stakes. A fire is kept burning on the grave for several days after a son or a younger brother has trampled it. A miniature hut is also built over the grave. Those who have died a violent death are cremated.

ESTHETIC AND RECREATIONAL ACTIVITIES

Art.—The northern *Guayakí* carve their arrowheads and decorate their calabashes with fire-engraved dots and dashes. The southern *Guayakí* paint horizontal stripes on their arrows, clubs, and chisels with a mixture of rosin and pulverized charcoal.

Games.—Children play with wax tops. Small children run around a little tree grasping it with their hands or swing hanging from a liana. Both adults and children are fond of making string figures (cat's cradles).

Musical instruments.—The northern *Guayakí* have bamboo flutes with three stops and calabash whistles with two stops. The calabash whistles of the southern groups have an opening across which they blow. The *Guayakí* also have cylindrical whistles made of wax or of a piece of bamboo (takuapi, *Merostachys clausenii*) smeared with wax and decorated with an animal claw. They use these instruments to signal their companions in the forest or to ask for help when they have killed large game.

Like the *Cainguá*, the *Guayakí* beat the rhythm of their dances with stamping tubes made of sections of bamboo.

Boys and girls use their nails to pluck fibers tied to a pole to make them vibrate. Boys burn holes in the shafts of their arrows to make them whistle when in flight.

Women sing songs on festive occasions, for instance, when a large animal has been killed or when some member of the group has been buried. Men utter a peculiar chant before going to sleep. They also chant when they have killed a coati.

RELIGION

Guayakí religion is almost entirely unknown. It is said that they try to prevent the wind from blowing or the rain from falling by shouting, as if these phenomena were living beings. They also swear at the rainbow, which they picture as a large and dangerous serpent. The *Guayakí* fear a bird, which they believe can strike them like lightning. They also dread a nocturnal bird (owl?), which they frighten away by shaking bunches of snail shells.

It is reported that they believe in forest spirits or goblins (M. Bertoni, 1941, pp. 22–23). A murderer, fearing the ghost of his victim, who may return in the shape of a bat, sleeps amongst a group of friends with his club beside him. This statement contradicts Mayntzhusen's impression that the *Guayakí* have little fear of ghosts.

MYTHOLOGY

The *Guayakí* explain lunar eclipses as the attack of jaguars against the moon. Sometimes the moon dies or is badly mangled. In order to succor the moon and frighten the celestial monsters, the *Guayakí* set fire to dry bamboos, which explode with a big noise, or strike trees with their axes. Falling stars are pieces of the moon. The Pleiades also are hostile to the moon, which is in danger every time it passes near that star cluster.

Long ago, when there was a big flood, men climbed on pindo palms and lived on the fruits, but they threw the stones of the fruit into the water, thus causing it to rise until most of them were drowned.

Once the moon fell into a pit but was rescued by a man (Bertoni, 1941, pp. 23–24, 36).

MEDICINE

A favorite cure consists in the application of heated leaves to the patient's body. Hot water poured on a layer of leaves also is used. Poultices are made of pulverized leaves or of pieces of bark. When a child feels pain in his stomach, two men take hold of him and stretch his limbs. Various medicinal plants known to the *Guayakí* have been listed by M. Bertoni (1941, pp. 51–54). Many of these are also used by the *Guaraní*.

There is no mention of shamans or of specialized curers.

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See also The *Caingang*, p. 475.

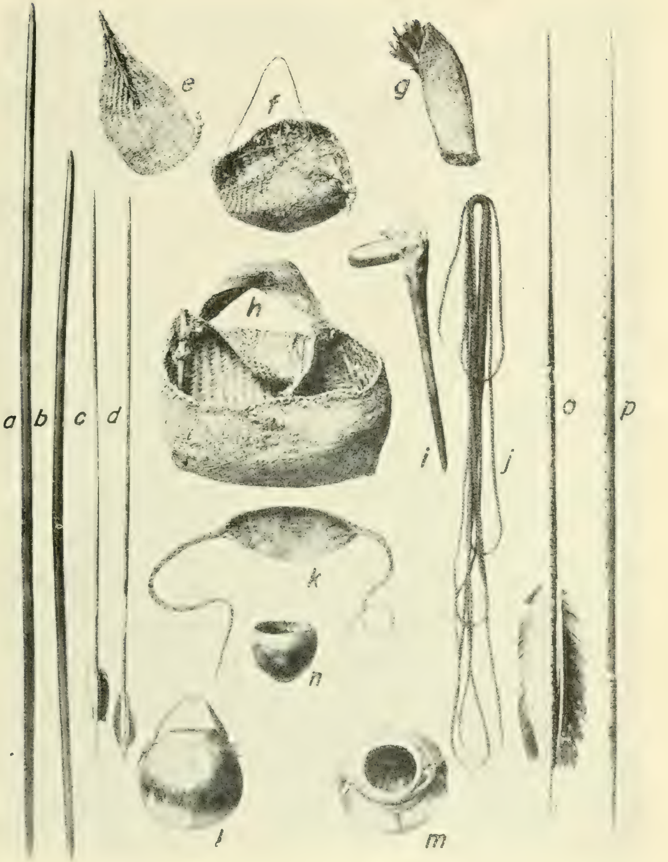

PLATE 95.—**Guayakí arms and utensils.** *a*, *b*, Bow staffs, *c*, *d*, arrows; *e*, fire fan; *f–h*, twilled baskets; *i*, stone ax; *j*, hair rope; *k*, tumpline; *l*, *m*, baskets smeared with wax; *n*, pottery vessel; *o*, arrow shaft; *p*, arrow point. (After La Hitte and Ten Kate, 1897.)

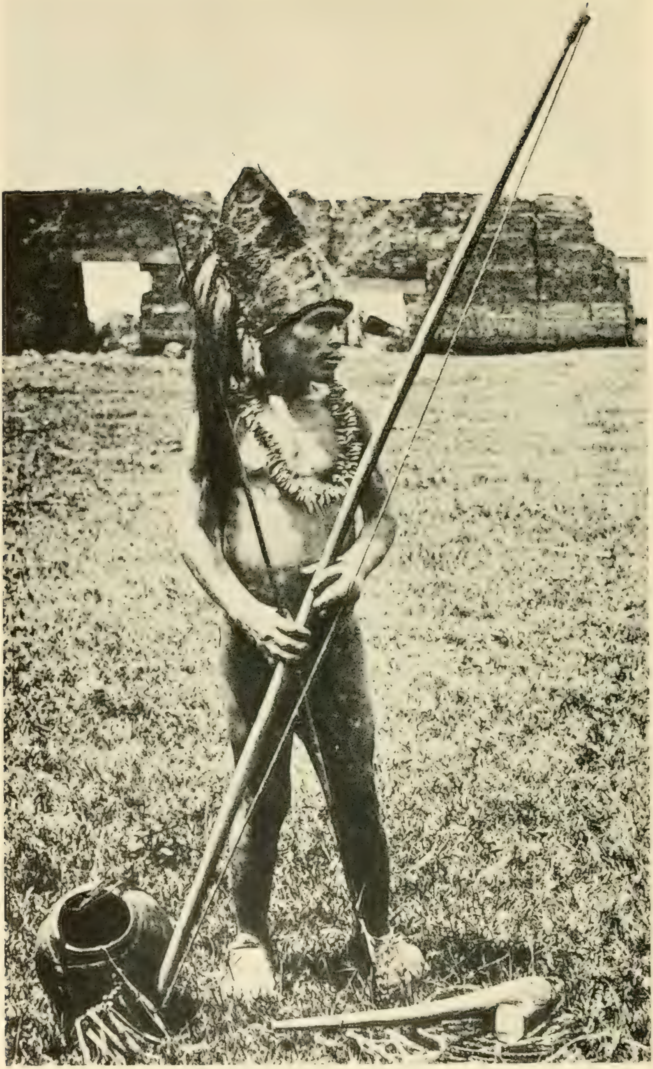

PLATE 96.—**Guayakí warrior.** (After La Hitte and Ten Kate, 1897, pl. 1.)

THE CAINGANG

By Alfred Métraux

TRIBAL DIVISIONS AND HISTORY

The name *Caingang* (map 1, *No. 10*) was introduced in 1882 by Telemaco Morocines Borba to designate the non-*Guaraní* Indians of the States of São Paulo, Paraná, Santa Catarina, and Rio Grande do Sul, who previously were known as *Guayaná*, *Coroado*, *Bugre*, *Shokleng*, *Tupí*, *Botocudo*, etc., but who are all linguistically and culturally related to one another and form the southern branch of the *Ge* family (long. 50° W. between lat. 20° to 30° S.).

Guayaná.—These Indians appear for the first time in the literature under the name of *Guayaná* (*Goyaná*, *Goaianaz*, *Guayná*, *Wayannaz*, etc.). Staden (1925, part 2, chap. 3) mentions them in the Capitania of São Vicente. Early documents assign to them the plains of Piratininga and the region where São Paulo was founded. According to Soares de Souza (1851, pp. 99–100) they were the masters of the entire coast of the present State of São Paulo, from Angra dos Reis to Cananéia. Actually, they shared the seashore with the *Guaraní*-speaking *Tupinikin.* The Portuguese chronicler describes them as noncannibalistic people with softer dispositions than the *Tupinamba*, living in the open country, and shunning the forest where they were worsted by their *Tupinamba* neighbors. Tebyreçá, who played such an important part in the early history of São Paulo, was a *Guayaná* chief. The settlement of Pinheiros, near old São Paulo, was formed by Indians of that tribe. Since the toponymy of this region is *Guaraní*, some authors consider the *Guayaná* a *Tupí-Guaraní* tribe. Though it is possible that the *Guayaná* of Piratininga spoke *Tupí*, there is little doubt that the majority of *Guayaná* belonged to a different family and were the ancestors of the modern *Caingang.* In the last century the name *Guayaná* was still applied in the State of São Paulo to a group of 200 *Caingang* who were settled in 1843 near Itapeva (Saint-Hilaire, 1830–51, 2:439–461; Machado de Oliveira, 1846, pp. 248–254).

The chronicler Rui Díaz de Guzmán (1914, p. 14) speaks of *Guayaná*, *Pattes* (*Basas?*), *Chouas*, and *Chouacas*, who spoke related languages and had their habitat on the Piquirý River and on the Rio Negro.[1]

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[1] Xarque (1900, 4:284) states that the "Guañana" were situated on the Piquirý River, near the missions of San Pedro, São Paulo, and Concepción.

Lozano (1873–74, 1:422) calls *Guañana*, *Guayaná*, or *Gualacho* the non-*Guaraní* "who lived on the Iguassú River and extended to the Atlantic." His description of the culture of the *Guayaná* of the Iguassú River leaves little doubt that these *Guayaná* were the modern *Caingang*, the more so that the only word of their language which he mentions is a *Caingang* word (soul, "acupli"; modern, "vaicupli").

Azara (1904, pp. 404–407) divides the *Guayaná* into two unrelated groups. The first ranged west of the Uruguay River from the region of La Guayrá to an undetermined boundary in the north. These *Guayaná*, who did not speak *Guaraní*, practiced bloodletting, used long bows, and raised some crops, were certainly identical to the *Caingang* who now occupy the same territory and who share the very culture traits enumerated by Azara.

The other *Guayaná* Indians described by Azara spoke *Guaraní* and lived on the right side of the Paraná River from the Caraguarapé River to the Monday River and on the left side from Corpus to the Iguassú River. The descendants of these *Guaraní*-speaking *Guayaná* resided, at the beginning of this century, near Villa Azara, on a stream called Pirá-pytá. They disclaimed any connection with the *Caingang*, though Ramon Lista (1883) seems to have included them among the latter. (On the *Guaraní*-speaking *Guayaná*, see Vogt, 1904, pp. 216–218.)

North of these *Guaraní*-speaking *Guayaná*, on both sides of the Paraná River, lived a *Caingang* subtribe called *Ingain* (*Tain*) or *Ivotirocaý*, after the stream (a western tributary of the Paraná River) on which they had their headquarters. Their bands were scattered from the stream of Ivotirocaý to the vicinity of La Guayrá falls. Their name, *Tain*, suggests close affinities or identity with the *Taven*, who lived in the same region between the Paraná, the Piquirý, and the Itatú Rivers. These *Ingain* or *Taven* are the Indians whom Lista (1883) and Martinez (1904) describe as *Guayaná*. (On the *Guayaná* question, see Ihering, 1904 a, pp. 23–44; Sampaio, 1897; Martinez, 1904; Vogt, 1904, pp. 352–376.)

At the beginning of the century, *Caingang* groups could be found in the vast territory of the State of Paraná between the Iguassú and the Paranapanema Rivers, but in recent times they had no settlements near either river, but were fairly numerous along the Tibagý and Piquirý Rivers. The *Caingang* who lived between the Rio das Cinzas and the Tibagý River called themselves *Nyacfateitei;* they were separated by the Tibagý River from closely related Indians, who were their bitter enemies.

The names Votóro, Kamé, and Cayurukré, given to *Caingang* groups of Guarapuava and Palmas, are simply appelations of moiety or class subdivisions and not, as it has been long believed, of independent bands or subtribes. The *Dorin*, who lived on the river of the same name, and the *Taven* (see above), whose habitat was bounded by the Paraná, the Piquirý, and the Itatú Rivers, were true *Caingang* subgroups different from the subtribe of the Guarapuava region.

The first settlers of the Campos of Guarapuava found these plains in 1810 entirely occupied by *Caingang*. These Indians were placed in aldeas under the care of Father das Chagas Lima, who wrote the first eye-witness account of them. In order to prevent constant clashes between the *Caingang* and the first colonists, the Brazilian Government made various attempts to settle them in aldeamentos. In 1855–56, the settlements of São Pedro de Alcántara, San Jeronymo, and Jatahý were founded for them on the Tibagý River. However, many *Caingang* groups remained independent in the forests between the Piquirý, upper Ivahý, and the Iguassú Rivers.

A census of the *Caingang* of the Guarapuava region taken in 1827 by Father das Chagas Lima (1842, p. 62) gave: Kamé, 152; Votóro, 120; *Dorin*, 400; *Shocren*, 60; and *Taven*, 240. In 1905, Koenigswald (1908 a, p. 47) estimated the *Caingang* of the State of Paraná at about 2,000.

Coroado.—From the 18th century to the present day, the *Caingang* of São Paulo, Paraná, and Rio Grande do Sul have frequently been designated as *Coronado* or *Coroado* (The Crowned Ones) because of their typical Franciscan-like tonsure, a hairdress which they have abandoned only in recent years. This unfortunate term is responsible for the confusion between the *Caingang-Coroado* and the *Purí-Coroado*, who seem linguistically unrelated.

Coronado, Gualacho, and Caagua.—Lozano (1873, 1:69) applies the name "*Coronados*" to the Indians of the open plains or Campos de los Camperos, del Guarayru, del Cayyu, de los Cabelludos, and de los Coronados between the Huibay (Ivahí) and Iguassú Rivers. These *Coronado*, who were certainly *Caingang*, were the same as the *Gualacho* (*Gualachí*), *Chiqui*,[2] and *Cabelludo*, who lived in the same region. As a matter of fact, Lozano himself considers these names to be synonyms of *Guañaná* (i. e., *Guayaná*). In the Cartas Anuas of 1628 (Cartas Anuas, 1927–29, 20:344), the *Gualacho* who did not speak *Guaraní* lived 4 days' travel from the mission of San Pablo, that is to say, in the basin of the Tibagý River in the very heart of the *Caingang* region. Likewise, the *Caagua* (*Caaigua*, "Forest Dwellers") of the Jesuits who roved between the Paraná and Uruguay Rivers, near Acaray in the region of La Guaira, were undoubtedly representatives of the *Caingang* subfamily. Jesuit maps indicate other *Caagua* in the region of Tapé (State of Rio Grande do Sul), an area where *Caingang* groups lived until the 19th century.[3]

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[2] According to Xarque (1900, 2:62), the *Chiqui* lived between the Iguassú and Itatú (Icatu) Rivers.

Tupí.—The Indians whom Azara (1809, 2:70–75) calls *Tupy*, and who formed an enclave within the *Guaraní* region, were also the ancestors of the modern *Caingang* of the upper Uruguay River. Their territory corresponded to the forested land east of the Uruguay River between the Jesuit missions of San Xavier and San Ángel and between San Xavier and lat. 27°23′ S. Jesuit sources assign to them the region extending between the headwaters of the Piratini (near San Miguel) and the Iguassú and Jacuhy (Igay) Rivers. There is not a detail in the short description of their culture given by Azara which does not fit modern *Caingang*: agriculture, tonsure, fiber cloth, shell necklaces, bow, etc. Moreover, modern *Guaraní* still apply the name *Tupí* to the *Caingang* of San Pedro in the Argentine Territory of Misiones (Ambrosetti, 1895, p. 305).

Botocudo.—The *Aweikoma-Caingang* groups of the State of Santa Catarina, have adopted the use of the labret and are, therefore, often called *Botocudo*, a name which erroneously suggests a connection with the northern *Botocudo* of the State of Espírito Santo.

Bugre.—The name *Bugre* applied by the colonists to the *Caingang* had a pejorative meaning. It is a Portuguese word of the same root as the French "bougre." The *Guaraní* also called the *Caingang* *Caauba*, and *Caahans* (Serrano, 1939, p. 25).

PRESENT SITUATION OF THE CAINGANG GROUPS

Caingang of the State of São Paulo.—At the beginning of the present century there were five groups of wild *Caingang*, known as *Coroado*, between the Peixe, and the Aguapehy (Feio) Rivers. Formerly there were also *Caingang* groups on the lower Tieté River. They resisted the advance of the Whites and continually assaulted the workers building the railroad from São Paulo to Corumbá. In 1910, thanks to the efforts of General Rondon and of the Serviço de Protecção aos Indios, peace was established and many *Caingang* settled around the two government posts created for them near the Aguapehy (Feio) River. Horta Barboza (1913, p. 24), who was one of the inspectors of the Indian Service, estimated the number of *Caingang* in that region at 500. The *Caingang* of São Paulo are also known as *Nyacfateltei* (*Nyakfã-d-ag-téie*, "Those with the long frontal hair").

Caingang of the State of Paraná.—The *Caingang* who are now established around Palmas in the State of Paraná come from the region between the Iguassú and Uruguay Rivers. In 1933, they lived in two villages near Palmas: Toldo las Lontras, on the river of the same name, and Toldo de Chapecó, in the region of Xanxeré. According to Baldus (1935), the population of the first village was 108, that of the second was somewhat higher but no exact figure is given. In earlier sources, the *Caingang* of the region of Palmas are often designated as Kamé after one of their moiety subdivisions.

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[3] Serrano (1941) extends the southern limit of the *Caagua* to the Santa Lucia River in Corrientes.

Caingang of Santa Catarina (*Shokleng*, *Socré*, *Botocudo*, *Aweikoma*).—The nomadic or half-nomadic *Caingang* who ranged in the State of Santa Catarina from the Timbo River to the forests of the Serra do Mar and from the Rio Negro to the Uruguay River are better known as *Bugre*, a derogatory term given to them by their enemies the White settlers, or as *Shokleng*, or *Botocudo* of Santa Catarina because of their wooden labrets. Nimuendajú calls them *Aweikoma*, a word of their language meaning Indians. Though they differ culturally from the Paraná *Caingang* (Baldus, 1937 c), there is little doubt that they belong to the same linguistic family, even if their dialect is not easily understood by the *Caingang* of Palmas.

During the whole 19th century, the *Aweikoma-Caigang* of Santa Catarina have stubbornly opposed the encroachments of the Brazilian and German settlers. They were constantly pursued by professional Indian hunters, the famous "bugreiros," until the Serviço de Protecção aos Indios intervened on behalf of the remnants of the tribe. Most of them were settled in the Reservation Duque de Caixas (Municipality of Dalbergia), near the junction of the Plate River with the Rio Itajahi do Norte. In 1930, the reservation consisted of 106 persons. Another small group of *Caingang* was reported in 1935 at São Jão, south of Porto da União.

Caingang of Rio Grande do Sul.—The *Caingang* who ranged north of the Uruguay River from the mouth of the Pepiri-guassú River to that of the Rio das Canoas and those who lived between the Rio das Canoas and the Rio Pelotas were distinct from the *Aweikoma*, though the demarcation between *Caingang-Coroado* and "*Botocudo*" cannot be exactly ascertained. The *Caingang* of the northern bank of the Uruguay River were the same as, or closely related to, the groups who had their villages between the Serra Geral, the upper Uruguay River, and the Sete Missões.

In 1850 Jesuit missionaries founded three settlements for the *Caingang* of the upper Uruguay: Nonohay, Campo do Meio, and Guarita. The Indians of Nonohay numbered about 400; those of Campo do Meio, 90. The Jesuit missions were short-lived; Nonohay, however, was restored in 1872 with 300 *Caingang*, who at the end of the century were almost entirely absorbed into the local rural population. According to Von Ihering (1895, p. 40), six "aldeamentos" of *Caingang* existed in 1864 in the State of Rio Grande do Sul, with a total population of about 2,000. In 1880, their number was already greatly reduced. In the same period "wild" *Caingang* were reported between the Taquarí and Cahy Rivers. Today their settlements lie between Inhacorá (Nucorá) (long. 54°15′ W.) and Lagoa Vermelha (long. 51°30′ W.).

The Caingang of Misiones, Argentina.—At the end of the 19th century about 60 *Caingang* lived in the Argentine Territory of Misiones on the eastern slopes of the Sierra Central, 3 miles (5 km.) from the town of San Pedro, near the Yabotí River. According to Ambrosetti (1895, p. 307), these Indians, who were known in the region as *Tupí*, had come from Palmas or Rio Grande by crossing the upper Uruguay River. A few years later (1902), some of them returned to Brazil.

Literature on the Caingang.—Few data on the *Caingang* can be gleaned from the Colonial literature. Though the *Caingang* are often mentioned in the Jesuit texts on the Paraguayan missions, Lozano (1873–74, 1:418–427) and Azara (1904, pp. 402–407) are the only authors who give short, but fairly accurate, descriptions of these Indians. The accounts of Father Luiz de Cemitille and of Telemaco Morocines Borba were for many years our best sources. Later, L. B. Horta Barboza (1913) published very exact observations on their customs, which were supplemented by Manizer (1930). Ambrosetti (1895) has written an interesting article on the *Caingang* of San Pedro, in Misiones. The social organization and funerary rites of the *Caingang* were the subject of a special monograph by Baldus (1937 c). Henry (1941) studied the decadent remnants of the *Aweikoma* group and described their culture in psychological terms. Their language is known mainly through an excellent dictionary by Father Mansueto Barcatta de Valfloriana (1918, 1920) and a linguistic analysis by Jules Henry (1935). Ploetz and Métraux (1930) have attempted to bring together most of the data about the *Caingang* contained in the literature up to 1928.

CULTURE

SUBSISTENCE ACTIVITIES

Farming.—The only *Caingang* who subsisted entirely by hunting and collecting were those of the State of Santa Catarina, the so-called *Botocudo or Aweikoma*. These Indians, however, remembered a time when they, like all other *Caingang* groups, practiced agriculture.

The ancient *Guayaná*, ancestors of the modern *Caingang*, are described as relatively sedentary agriculturists, though our sources stress the importance of hunting in their economy. This was also true for the *Caingang* at the end of the 19th century. All their groups raised maize (red, white, and violet varieties), pumpkins, and beans (a white variety), but perhaps depended less than their *Guaraní* neighbors on these crops. Like many Indians who had become acquainted with farming in recent times through the intermediary of some other tribe, the ancient *Caingang* were improvident and consumed their crops as they matured, storing none for the lean months ahead. On the other hand, Horta Barboza (1913, p. 34) states that maize was as important to them as "wheat for the Europeans." The *Caingang* of the region of San Pedro (Misiones), observed by Ambrosetti (1895, p. 337), opened their clearings in tracts covered with bamboo or sparse bush. They broke the small trees with cudgels or by hand. When the dead trees were dry, they burned them and waited until the beginning of the rainy season for sowing. Women planted crops with digging sticks; they also harvested the crops and carried them home. Men do all the farming in the reservation of Palmas.

In modern groups the tiller of a field is recognized as its exclusive owner; if he dies before harvest, the seedlings are destroyed.

Collecting.—When the *Caingang* were still living in their aboriginal condition, pine nuts of *Araucaria angustifolia*, a tree which has a distribution coinciding more or less with that of the tribe, was fundamental to the native diet. From April to June the Indians gathered in the forests to climb the trees and knock down the ripened fruits, which the women helped to pick up. The climbing technique—also used in getting honey or in robbing birds' nests—was to pass one noose around the feet, another around the tree and the climber's back, and alternately move the two bands up the trunk. The *Awekoma-Caingang* used only a noose of bamboo strips.

The *Caingang* also collected wild tubers (*Dioscorea* sp.) and a great many wild fruits, such as jaboticaba (*Myrciaria* sp.), pitanga (Myrtaceae sp.), articú (*Annona montana*), pineapples, papaya (*Carica papaya*), caraguatá (*Bromelia* sp.), etc. The starchy pith of the pindo palm (*Cocos romanzoffiana*) was formerly an important food item, but today has been supplanted by manioc flour.

Honey and the larvae of bees and especially the larvae of the tambú beetle, which abound in decayed palm and bamboo trunks, are prized delicacies. It is also reported in some sources that the ancient *Caingang* did not despise snakes or lizards.

Hunting.—The *Caingang* spend a large portion of their time hunting alone or in small parties. The dog, treated by some groups as an indispensable auxiliary, is a recent acquisition. Some *Caingang* groups lacked it as late as 1912. To develop the smelling powers of their dogs, the Indians expose them to the smoke of the burnt skin of the game which they are to stalk. They never give them the bones of game animals to gnaw, taking great precaution lest the game be offended.

An entire band participates in a peccary hunt. Old and young, preceded by dogs, endeavor to drive the animals toward hunters, who shoot them with arrows. The *Aweikoma-Caingang* follow droves of wild pigs for several days, killing all those which come within their reach.

The *Aweikoma-Caingang* concentrate on hunting tapirs, which seem to be abundant in their territory. They track them with dogs or follow the deep "runs" opened by the tapirs in the bush and pursue their prey until it is forced into a stream, where they can kill it with ease. Similarly, they drive deer into streams, where they shoot or club them.

To capture birds, hunters conceal themselves in a shelter built on a tree where the birds roost, and snare them with a noose at the end of a long pole. To catch parrots, they use a tame parrot as a decoy; for pigeons, they put corn out as bait (Horta Barboza, 1913, p. 31).

The spring-pole traps were constructed like those of the *Cainguá* or of the Chaco Indians. They consisted of a flexible sapling and a noose placed near a bait (Horta Barboza, 1913, p. 30).

Hunting ritual.—As a rule a hunter never ate the meat of the game he had slain but gave it to some companion. He could not eat the flesh of a tapir he had killed before he had performed a rite in which he consumed premasticated tapir flesh and the charcoal of the burned tapir's windpipe wrapped in grass (Henry, 1941, p. 86). When the *Aweikoma-Caingang* killed a tapir they stewed "tapir grass" on it and placated its soul with friendly words lest it prevent other tapirs from being caught. Monkeys were also asked to come and share the food of the hunter. *Caingang* of São Paulo considered the jaguar and deer meat taboo (Horta Barboza, 1913, p. 32); others refrain on some occasions from eating paca, capybara, and armadillo flesh.

Fishing.—The *Caingang*, although fond of fish, are very poor fishermen. They shoot fish with bows and arrows, impale them with two-pronged spears, or catch them by hand in the falls when shoals of fish ascend the river to spawn. They also capture them by hand in small lagoons formed by floods, which they drain (Horta Barboza, 1913, pp. 32–33). The *Caingang* of Misiones blocked small streams with V-shaped stone dams. Against the openings they built a platform on which they placed a large mat folded and tied up at one end like a huge bag.

Seasonal rhythm.—After planting their fields, the *Caingang* of Misiones went fishing along the small tributaries of the Paraná River. Later they moved to the Sierra Central to collect pine nuts, and afterward returned to their fields for the harvest. During their wanderings they hunted and gathered fruits and larvae in the forest.

Food preparation.—The women do most of the cooking, though men generally prepare the game they kill. The *Caingang* generally roast the unskinned animal in ashes, on a spit, or on a rectangular babracot. The earth oven serves for baking large slices of meat, for example, tapir. A large pit is dug in the ground and lined with stones. A fire is built within the hole until the stones are glowing. The ashes and embers are then removed, the stones are covered with leaves, and the meat, carefully wrapped, is placed inside and buried under a thick layer of soil. Twelve hours later the meat is taken out, perfectly cooked. Fish are broiled on a babracot, then stored on an indoor platform.

Women pound maize with heavy wooden pestles in cylindrical wooden mortars, which are sometimes large enough to accommodate three workers at a time and too heavy to be moved (fig. 58, *d*). They also have smaller mortars with which they use stone pestles. Maize flour is prepared as mush or is kneaded into dough and baked in ashes. Maize kernels are often soaked in water to the point of rotting, mashed, kneaded into loaves with saliva added, and roasted in ashes.

The pith of pindo palms is crushed in a mortar, sifted, and roasted in a pan, just as with manioc flour.

Soup is made from husked, chewed, soaked, and pounded pine nuts. They are also roasted in the shell on the embers; pine-nut dough may also be kneaded into small loaves and baked in the ashes. Piñons are preserved in tightly closed baskets soaked in water for a month and a half. In the past salt was unknown; tart malagüeta berries (*Capsicum frutescens*) were used instead.

To stir the fire or lift food to and from it, the *Caingang* use a curved withe (Manizer, 1930, pp. 772, 774; Henry, 1941, pl. 2, *f*).

HOUSES

Lozano (1873, 1:424) describes the *Caingang* or *Guayaná* hut as follows:

> They stick in the ground a long forked pole against which they lean crosswise four other poles. In this way they make four divisions covered with palm leaves. In each division lives a family with the children. Each compartment communicates with the other by small doors. In each community there are five or six such huts placed at convenient distance from each other so that everyone can hunt and fish.

This type of house has entirely disappeared among modern *Caingang*, but a few years ago the *Aweikoma* remembered it as the house of the open savannas and were able to reconstruct one (Henry, 1941, p. 166).

The more recent *Caingang* dwelling was a lean-to (fig. 56), which often was made into a gable-roofed hut when two structures of this type were joined. The *Aweikoma-Caingang* live either in an arched lean-to which is open on three sides or in a hut composed of two such units, the arches being made to descend to the ground at both ends (Henry, 1941, pp. 164–166). Such dwellings are thatched with palm fronds or comparable materials (fig. 57). Most *Caingang* groups live in houses identical to those of the *Cainguá*. When on a journey the *Caingang* sleep in flimsy shelters or rest in a sort of nest which they build in the top of a tree (Horta Barboza, 1913, p. 35).

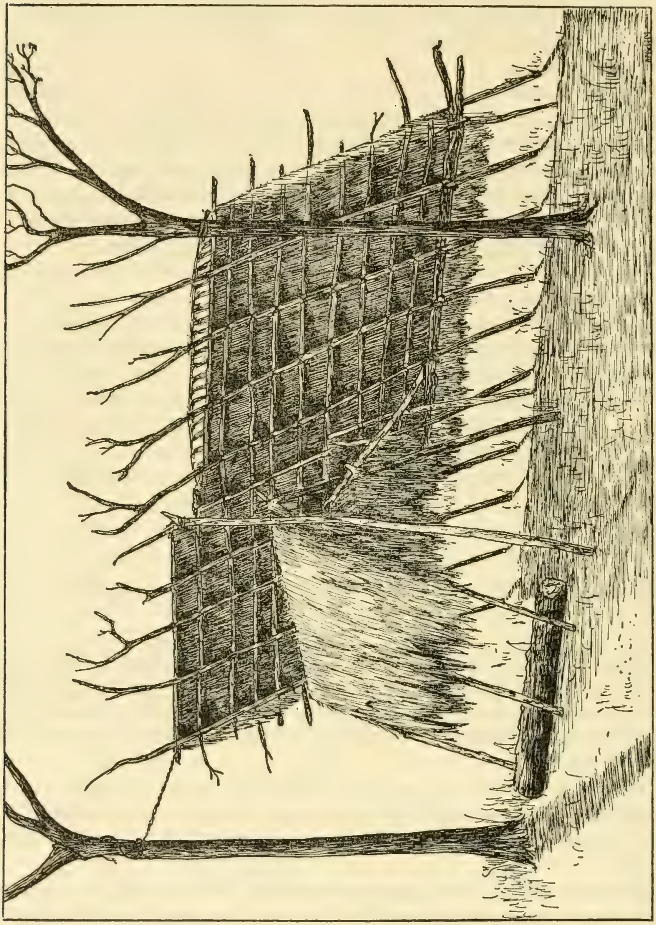


FIGURE 56.—Primitive *Caingang* wind shelter. (Redrawn from Manizer, 1930, p. 768.)

Hammocks of cotton are a recent *Caingang* acquisition. The ancient *Guayaná* slept, according to Portuguese chroniclers, on branches

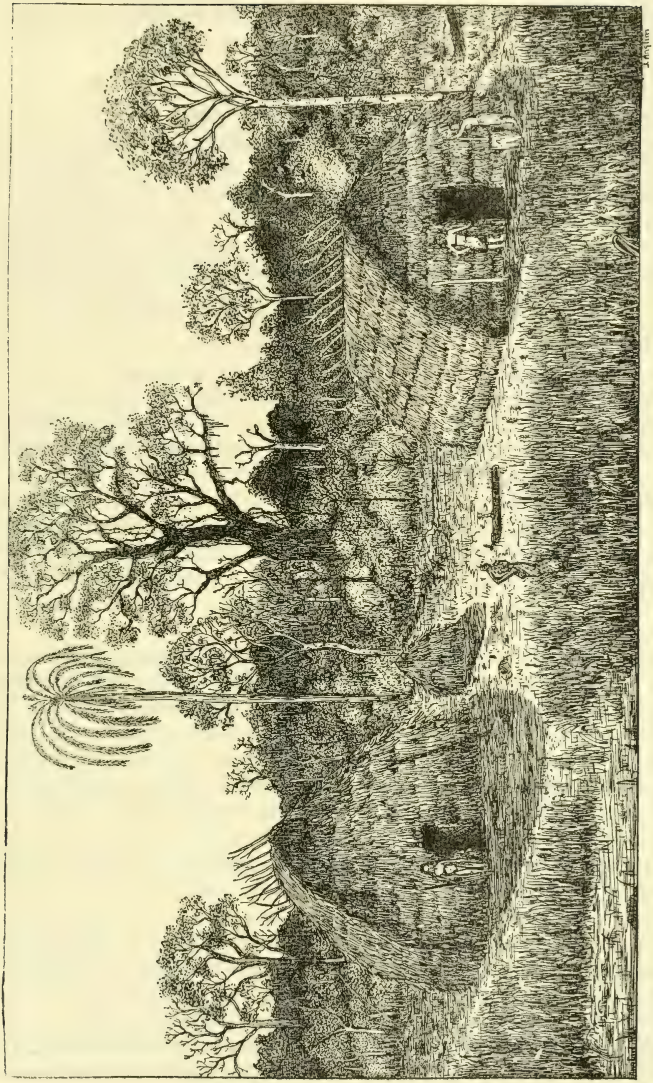


FIGURE 57.—Modern *Caingang* houses. (Redrawn from Koenigswald, 1908 b, fig. 3.)

or skins. Their descendants, the *Caingang*, rest on large strips of bark or thick layers of palm fronds, but many groups have adopted platform beds.

DRESS AND ORNAMENTS

Clothing.—The wild *Caingang* go naked except for a belt—generally a skein of brilliant brown threads of the bark of the young *Philodendron* root or of palm twisted into a cord—and a square cloak (kurú) reserved for cold weather (fig. 58, *a*, *b*). This garment is passed under the right arm and fastened on the left shoulder so as to leave both arms free. Women wear a short skirt made of caraguatá fibers, secured around the waist by a wide belt of bark dyed a brilliant black. Both sexes wrap strips or strings of peccary hair or of bark around their ankles. Some *Caingang* tie up the foreskin of the penis and tuck it under their belts. On solemn occasions, *Caingang* women who were in contact with the *Guaraní* missions wore a narrow sleeveless shirt (tipoy) made of caraguatá fibers. Koenigswald (1908 b, p. 31) reproduces a feather apron which he describes as a women's garment. *Caingang* women are also said to have used a bark band passed between the legs and fastened to the belt.

Ornaments.—Some *Aweikoma-Caingang* of the State of Santa Catarina and of Rio Grande do Sul wear long rosin labrets like those of their *Guaraní* neighbors. Others have wooden lip sticks (generally made of pine knot) 2 inches (¾ cm.) long "in the shape of a nail." This usage is responsible for the name *Botocudo* given to the *Caingang* in these States.

Feather ornaments were common among the *Caingang*, but except for the small "visors" of short toucan feathers worn around the forehead, they are rarely described in our sources. Debret (1941, pls, 11 and 12) has endeavored to represent a "Coroado" (*Caingang*) chief displaying all his ornaments. The chief wears a fan-shaped feather headdress attached to his nape. Long feather tassels are tied to his upper arm and under his knees. The *Caingang* of the State of Paraná don, on festive occasions, a feather cape, that covers them from head to foot (Koenigswald, 1908 b, p. 27). If this ornament actually was used by these Indians, it may well represent a survival of the feather cloaks of the ancient *Guaranî*.

During dances, men and women often strew down over their heads. Necklaces of seeds, animal teeth, bird bones, claws, and hoofs were generally slung around the shoulders; those composed entirely of monkey teeth were especially valued. The *Caingang* of Guarapuava and of Misiones had necklaces of small shell disks (*Orthalicus phogera*). Some *Caingang* wore necklaces which weighed nearly 6 pounds!

Until recently, the *Caingang* wore a circular tonsure on top of the head; the fashion disappeared among adults after their contact with the Whites, but was retained for small children. In recent times the Santa Catarina *Aweikoma-Caingang* of both sexes shaved the hair over the forehead and on top of the head (Paula Souza, 1924, p. 122).

The *Caingang* abhor body hair and always remove it. Combs consist of small wooden splinters passed through a slit in a piece of reed.

The *Caingang* seem to have used charcoal more than urucú for body painting. Among the *Aweikoma-Caingang* certain body paints belong to exogamic groups of people. The main motifs are dots, vertical lines, circles, and horizontal bars with vertical lines. The *Caingang* observed by Manizer (1930, p. 771) painted themselves only for funeral ceremonies. They regarded the black stripes on their chest as a protection against the ghosts. The pigment was charcoal mixed with honey and water or with the sticky sap of a creeper.

TRANSPORTATION

River navigation never was so important to the *Caingang* as to their *Tupí-Guaraní* neighbors. To cross a river, the *Aweikoma-Caingang* fell a tree on each side of the river and connect the intervening space with a tree trunk braced with poles fixed in the river bed.

Caingang women carry babies on their backs, often in a net, by means of bark tumplines. Among the *Aweikoma-Caingang* these straps are 4 inches (10 cm.) wide, woven of embira fibers. Knapsacks are suspended by a tumpline.

MANUFACTURES

Netting.—According to Koenigswald (1908 b, p. 49), the Paraná *Caingang* made net bags of caraguatá fibers.

Basketry.—*Caingang* carrying baskets have a hexagonal weave, and, like those of the *Tupí*, are elongated and rectangular knapsacks open on top and on the outer side, so that only the bottom and sides support the burden. Basketry containers woven from thin strips of split bamboo, frequently have stepped designs produced by alternating black and natural color strands (fig. 58, *c*). Some baskets, like those of the *Guayaná*, are made in two parts that telescope into each other.

The *Aweikoma* have three main types of baskets: large baskets for transportation of goods; small, impervious water or honey containers of Taquara mansa strips coated with wax; and small receptacles, similarly waterproofed, used as cups and dishes.

Spinning.—*Caingang* textiles are made with the fibers of the ortiga brava, probably a Bromelia. Women seize the leaves with leather-covered hands, cut them at the base, and remove all the thorns, then macerate the leaves in water, dry, and, finally, crush them. The fibers are then rolled into threads with the palm of the hand against the thigh. The threads, wound in a ball, are soaked in water mixed with ashes, then boiled, and again carefully washed; sometimes they are left in running water, so that they become white and flexible. Occasionally, part of the thread is dyed with catigua bark.

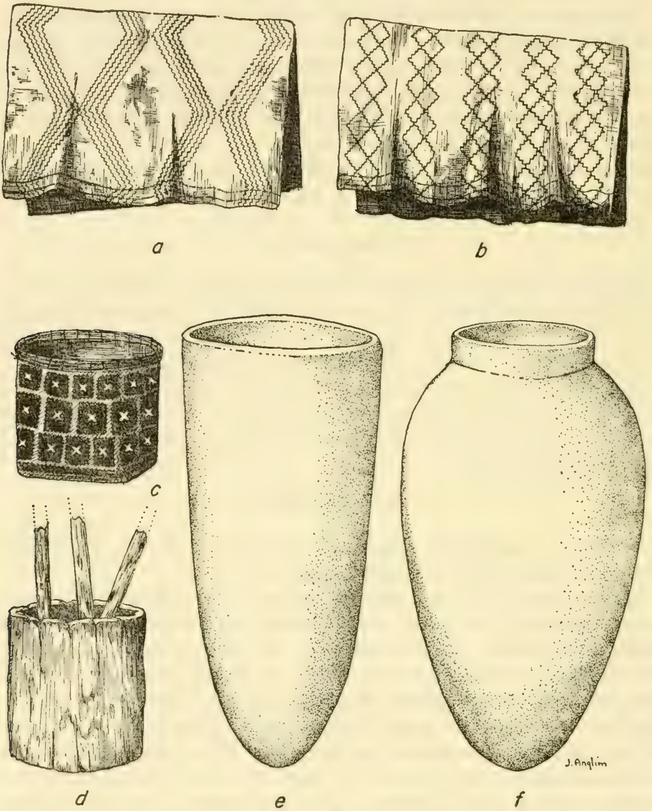


FIGURE 58.—*Caingang* manufactures. *a, b,* Kurus or nettle-fiber cloaks (redrawn from Koenigswald, 1908 b, figs. 15–16) ; *c,* twilled basket (redrawn from Koenigswald, 1908 b, fig. 20) ; *d,* wooden mortar in which three pestles are used at the same time (redrawn from Manizer, 1930) ; *e, f,* pottery jars (redrawn from Manizer, 1930).

Weaving.—Fabrics are woven by hand, sometimes on a simple loom, and always display a stepped, dark design which crosses the surface diagonally (fig. 58, *a*, *b*).

Ceramics.—For pottery, the *Caingang* of Misiones use a blackish earth from nearby cliffs. For tempering material, they bake lumps of clay, then crush and sift them. The composition of the clay used by other groups is unknown. The potter first models the base of the pot by hand, then builds up the walls by adding successive coils, smoothing the sides with her fingers or with pieces of wood or shell, a corn cob, a stone, or a metal spoon. To keep the clay soft, she sprinkles it with water or saliva. The following day the pot is again smoothed, then left to dry in the shade and later in the sun. When thoroughly dry, the pot is covered with branches and fired in the open until red. Later, water mixed with ground maize is sprinkled on the pot "in order that it may be unbreakable." Cracks are filled with wax while the pot is still hot. The firing, however, is always imperfect; sherds of the heaviest *Caingang* pots reveal a thick layer of unfired clay in the middle. The presence of a foreigner during firing endangers the process, and may cause the pot to crack beyond repair.

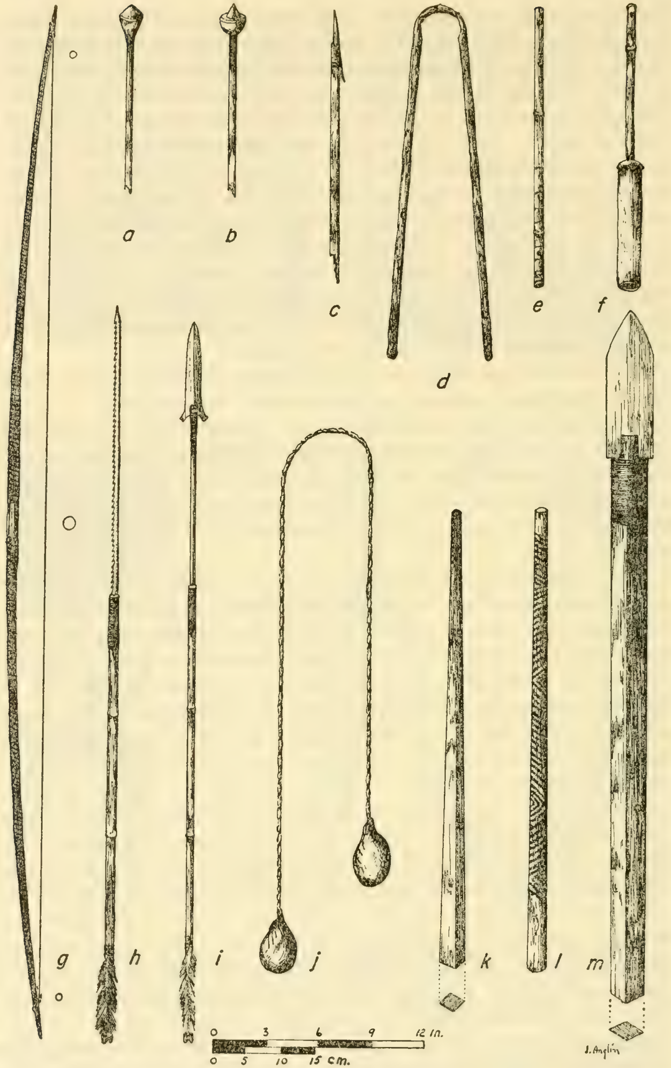
The *Caingang* of Misiones make their pots characteristically black by exposing them to smoke in a basket before they are fired.

Caingang ware has a conical base so that it can be set into the sand (fig. 58, *e*, *f*). The *Caingang-Coroado* make large beer jars, strikingly like *Guaraní* jugs and funeral urns, with a conical body surmounted by a narrow edge. Besides large pots, the *Caingang* also manufacture flat roasting pans and conical drinking cups with thin walls.

Fire.—The *Caingang* fire drill consists of a stick of hard wood inserted into an arrow shaft and twirled between the palms of the hand. The hearth is a piece of soft wood. Dry palm shoots serve as tinder. According to a single authority, the *Caingang* also produce fire by sawing one piece of wood with another, a procedure observed by Rengger among the *Cainguá*, but otherwise not reported for South America. The fire is activated with a fan. To avoid having to make fire, the natives carry a glowing brand in a pot or in a section of bamboo coated with clay.

Weapons: *Bows and arrows.*—Bows are made of páo d'arco (*Tabebuia impetiginosa*) or of black ipé (*Tabebuia chrysantha*). Before the *Caingang* acquired iron, they wrought the bow stave into shape by rubbing it with sandstone and flint flakes, and smoothed it with the rough leaves of umbauba (*Cecropia* sp.). Finally, the stave was warmed against a fire and smeared with grease. At each end a plaited bulge or, rarely, two right-angled notches prevented the caraguatá or embira string from slipping. The stave was wrapped with strips of cipo embé (*Philodendron imbe*) (fig. 59, *g*), which at both ends formed a bulge to prevent the string from slipping. Some *Caingang* bows were 9 feet long, but they generally averaged from 7 to 8 feet.

The arrow shaft, according to the locality, is made of taquara da frecha (*Gynerium sagittatum*), or of palo alecrim, a white wood that


a
b
c
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g
h
i
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l
m
0
3
6
9
12 in.
0
5
10
15 cm.
J. Anglin

FIGURE 59.—*Caingang* weapons and artifacts. *a, b,* Bird arrows; *c,* arrow with single-barb bone point; *d,* fire tongs; *e,* flute; *f,* trumpet; *g,* bow; *h,* arrow with barbed wooden point; *i,* arrow with iron point; *j,* bolas; *k,* wooden club; *l,* wooden club covered with basketry; *m,* spear with iron point. (Redrawn from Koenigswald, 1908 a, figs. *a–k;* 1908 b, figs. 4–20.)

turns very light when dry. To straighten a reed, they lash it against a horizontal piece of wood, fastening a weight at one end. Arrowheads are wide taquara splinters, barbed rods (fig. 59, *h*), wooden rods tipped with a sharp point of monkey or deer bones (fig. 59, *c*), and massive, blunt wooden knobs used for birds (fig. 59, *a*, *b*). Some bird arrows are also tipped with four slightly diverging sticks or thorns. In recent years, the hunting and war arrows of the Santa Catarina *Aweikoma-Caingang* have been tipped with duck-bill iron heads (fig. 59, *i*). Feathering is of the arched type (eastern Brazilian). Hunters always carry a ready supply of bone heads, shafts, and feathers to replace lost arrows.

Spears are common among the *Caingang*, who tipped them with iron blades obtained from the Whites (fig. 59, *m*). The *Aweikoma* were extremely skillful in handling these weapons, which they decorated with fire-engraved designs and with basketry coverings.

The clubs of the Paraná *Caingang* are short cylindrical cudgels covered with basketry (fig. 59, *l*); those of the so-called *Botocudo* are more or less tapering, with the cross section often prismatic, thus presenting sharp cutting edges (fig. 59, *k*). They are decorated with fire engravings and with a basketry sheath. The cudgels of the São Paulo *Caingang* have a bulging head and are from 5 to 6 feet long.

Countless stone rings have been found on archeological sites of the State of Rio Grande do Sul. In the 17th century, some tribes of the upper Paraguay River used clubs with stone heads (itaiza), but there is no evidence that these Indians were *Caingang;* it is more likely that they were *Guaraní.*

To frustrate attack or pursuit by an enemy, the *Caingang* strewed the paths leading to their camps with caltrops made of sharp bone splinters bound in a bundle with cotton thread and wax. They also dug pitfalls in the bottom of which they placed sharp spears.

SOCIAL ORGANIZATION

Moieties.—The *Caingang* of Palmas have two exogamous, patrilineal moieties, each split into two groups. Baldus (1935, pp. 44–47) does not give the names of the moieties, merely stating that they were called by the word for both "friend" and "two," and that fellow members considered one another cousins. On the other hand, he lists the four subgroups according to their prestige as follows: Votóro, Kadnyerú (Kañerú), Aniky, and Kamé. The reason for this preferential ranking could not be ascertained. Every individual is born into a moiety, but is assigned to one of the subgroups at a mortuary feast by a man or a woman of his own moiety.

Among the *Caingang* of Palmas, the father decided, when he painted a son or a daughter for the first time, to which of the two groups of his moiety he would forever belong (Baldus, 1937 c). The alleged purpose of this assignment was to equalize the groups numerically, so that they could be paired for dancing; but, as each group danced separately, the explanation is probably a rationalization. In fact, the two divisions are not even approximately equal. Members of each group could be recognized by their facial painting. The Kadnyerú display round patterns, the Kamé stripes. (See Horta Barboza, 1913, p. 39.)

Nimuendajú's (1914, pp. 373–375) earlier report concerning the *Caingang* between the Tieté and Ijuhí Rivers, speaks of two moieties associated with the ancestral twins Kañerú and Kamé. The former was of fiery and resolute, but volatile, temperament, and of light, slim build. Kamé, on the other hand, was mentally and physically slow, but persistent. Each moity included three (formerly four) classes: Paí, Votóro, Pénye.

All natural phenomena are divided between these two moieties; the sun is Kamé, the moon, Kañerú. In general, slender and spotted objects belong to the Kañerú, clumsy and striped ones to the Kamé. Their use in ritual is confined to the appropriate group.

The *Aweikoma-Caingang* lack moieties, but have five groups with distinctive sets of personal names and body-paint designs. Though recent genealogical inquiry failed to establish either strict inheritance of group membership or exogamy, the natives insisted that individuals bearing the same designs should not marry, so that a former patrilineal clan system is indicated (Henry, 1941, pp. 59, 88, 175 f.).

Marriage groups.—Concerning marriage rules between subgroups, Horta Barboza (1913, p. 26) gives the following information:

> Marriages obey complicated rules depending on the groups [moieties] and subgroups into which the *Kaingang* families are divided. The most important of these groups are the Camens and Canherucrens; marriages can take place only between the men of one group and the women of the other. However, it must not be thought that it is licit for a Camen to marry any Canherucren for, in order to make things more complicated, there is a division into subgroups, fairly numerous. Individuals of a certain Kamé subgroup can only marry a woman of a certain Canherucren [Kadnyerú] subgroup, save for a few exceptions which confuse a question which otherwise should be so simple.

Kinship terms.—The relationship system is based on relative age. A man calls his father, his grandfather, and the men of their generations by the same term, and his mother and grandmother by another term. He uses a single name for all male and female blood relatives, excepting real parents and grandparents and grandparents' siblings and own children. One word (child) serves for all people much younger than ego and for the children of all people with whom he has sexual relations. There is a word for husband and another for wife. A single word applies to all relatives-in-law (Henry, 1941, pp. 177–178).

POLITICAL ORGANIZATION

Chiefs wield little authority. They work in their fields and hunt like the rank and file of the group. Their position is conspicuous only when the community organizes a big feast, which is always given in the chief's name. Chiefs also are the leaders of any collective undertaking. They maintain their hold on their people by distributing gifts and looking after their well-being (Koenigswald, 1908 b, p. 47). A chief who is overbearing or miserly is abandoned by his followers. The son of a chief succeeds to his father if he is acceptable to the group (Horta Barboza, 1913, p. 25).

LIFE CYCLE

Birth and childhood.—Formerly, a pregnant *Caingang* woman did not consort with her husband, and both observed food taboos. Women gave birth in the forest, sheltered from the supposedly maleficent moonbeans.[4] A few days after delivery the mother and child were fumigated, a rite accompanied by a drinking bout.

Nowadays, a *Caingang* woman bears her child wherever she happens to be, knowing how to take care of herself even if she is alone. Usually, she is delivered squatting while a midwife embraces her from behind, raising her now and then until travail is over. The navel cord is cut with a fingernail and tied with a caraguatá string.

Among the *Aweikoma*, the placenta and umbelical cord, wrapped in medicinal herbs, are placed in a basket and sunk in the stream. The mother winds a long cord around the ankles of the baby and removes it 15 days later during a feast given by the father to a group of relatives. The umbilical cord is disposed of by the mother's brother or his wife or by the mother's sister, who later become ceremonial parents.

In other *Caingang* groups, the mother pulls open the infant's eyelids immediately after birth "in order that he might see," breathes into his eyes and ears, and presses his temples and head from front to back. The father does not pay much attention to the baby until it is old enough to speak: Then he gives it 5 to 10 names. In the south, the names were bestowed without any rite after the above-mentioned ceremony.

The *Caingang* show the greatest tenderness to their children, seldom punishing them or using harsh words.

According to Horta Barboza (1913, p. 27), when a boy reaches the age of 7, his mother rubs his body with the leaves of a certain tree and pours water over his head to make him courageous and diligent.

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[4] It is reported that they gave birth unassisted in a special cabin (Serrano, 1939, p. 26).

The child then receives a new name. Later, he may adopt names that refer to notable incidents of his life.

In the Santa Catarina group, the perforation of the boys' lower lip at the age of 2 or 3 is marked by great celebrations. Women, holding gourd rattles, dance with warriors, who beat the ground with their spears. The children are intoxicated with beer, and shaken until half unconscious, when their ceremonial fathers pierce their lips with a sharp stick (Henry, 1941, pp. 195–197).

Marriage.—According to Baldus' census (1937 c, p. 43), men are generally older than their wives, in some cases as much as 15 to 20 years; among 37 percent of the couples there was a difference of 10 years.

A man marries when 18 to 20 years of age. If his bride is not yet of age, he stays with her parents, waiting for the first signs of puberty. In case of child betrothal, the lad's parents have to provide for the girl's subsistence.

Polygyny is mentioned by all the early sources, but details vary. Some authors declare that it was an old man's privilege, others that it was restricted to the chiefs, good hunters, or famous warriors. There are also indications of sororal polygyny and of marriage simultaneously to a woman and her daughter (Teschauer, 1929, p. 350). In *Tupí-Guaraní* fashion, a girl often married her mother's brother.

The *Caingang* of Palmas are, and claim always to have been monogamous.

Manizer (1930) states that though a man may not marry his cousin—he does not specify which—he usually takes her as a concubine until her own marriage. If pregnancy occurs meanwhile, the girl, as a rule, commits abortion. It often happened that a man grew fonder of his cousin than of his legal wife, and that he sometimes resolutely opposed her marriage. The continuation of such relationship was bitterly resented by the legitimate wife.

For the *Aweikoma*, Henry infers that 60 percent of all marriages are monogamous, a fair proportion of the remainder being polyandrous.

A marriage ceremony witnessed by Manizer (1930, p. 776) took place during a drinking bout. Some old men seized the bridegroom and bride and pushed them toward each other in spite of the woman's resistance. Then they dragged them into the bridegroom's hut and left them there under a blanket. The following day the woman ran away, but was brought back by force.

Matrilocal residence, formerly the *Caingang* rule, is still frequent, though many couples set up their own households. Baldus (1937 c, p. 43) heard "that only lazy men lived in their father-in-law's house and that, should the father-in-law die, the husband would have to 'govern' his mother-in-law."

Funerary rites.—Death may result from the abduction of the soul by some spirit or by the ghost of a relative.

> The ghost-soul loves and pities the living whom it has deserted, but the latter fear and abhor the ghost-soul. [Henry, 1941, p. 67.]

Not long ago the *Aweikoma-Caingang* cremated the dead and later collected and buried the bones, along with part of the deceased's property. After a cremation, they extinguished their fires and drilled fire anew. The soul of the deceased loomed as a peril especially to the surviving spouse, who went into retreat, abstained from eating meat, and underwent lustration. To terminate mourning, the mourner's hair and fingernails were clipped, pounded up, and thrown into the water. Then followed a beer festival, accompanied by dances and songs, during which the widow drank beer from a bamboo tube. Keening was not confined to the period of death, but occurred throughout the following year whenever relatives recalled their bereavement.

The *Caingang* now inter their dead with knees drawn up. Chants are sung around the body during and after its transportation to the grave. One cemetery had two central tumuli, 10 to 20 feet by 18 to 25 feet (3 to 6 m. by 5.5 to 7.5 m.) surrounded by vertically walled ditches. The same tumuli have been reported for the 18th-century *Guayaná*, ancestors of the *Caingang* [5] (fig. 60). The corpse, with funeral deposit, is put in a deep chamber, roofed with palm fronds and earth. The villagers at once desert the settlement and hastily construct new dwellings in the woods. For 3 days they eat only palm shoots (palmitos) and maize boiled by throwing heated potsherds in the water. They destroy part of the deceased's property and impose a strict taboo on his name.

The grave is periodically visited to renew the mound and to hold a memorial service with lamentations, dancing, chanting, and drinking. For several years, at dawn and dusk the relatives of a dead person utter funeral laments.

In days of old if a person died far away from his village, his companions interred his body on the spot but kept his head in a pot. On returning home they celebrated a funeral ceremony and buried the head in the communal cemetery (Horta Barboza, 1913, pp. 29–30).

Life after death.—Before the burial, the shaman, as he rattles his gourd by the corpse, warns the soul about the lurking dangers in the other world. He tells it that it will arrive at two paths, one leading to the cobweb of a gigantic spider and the other to a trap which will

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[5] See Lozano (1873–74, 1 : 423) : "forman un género de cementerio, que conservan muy limpio ; y en él abren sus sepulturas, y en enterrando á alguno, ponen sobre cada una un montón de tierra en figura piramidal, en cuyo remate sientan un medio calabazo, y al pié conservan de contínuo un fuego lento que van a cebar todos los dias con leña muy tenue, sus mas cercanos parientes. El calabazo, dicen, es para que no falte al difunto con que beber, si le afligiere la sed ; y el fuego para que ahuyente las moscas." On the funerary mounds, see also Serrano (1939, pp. 15–16).

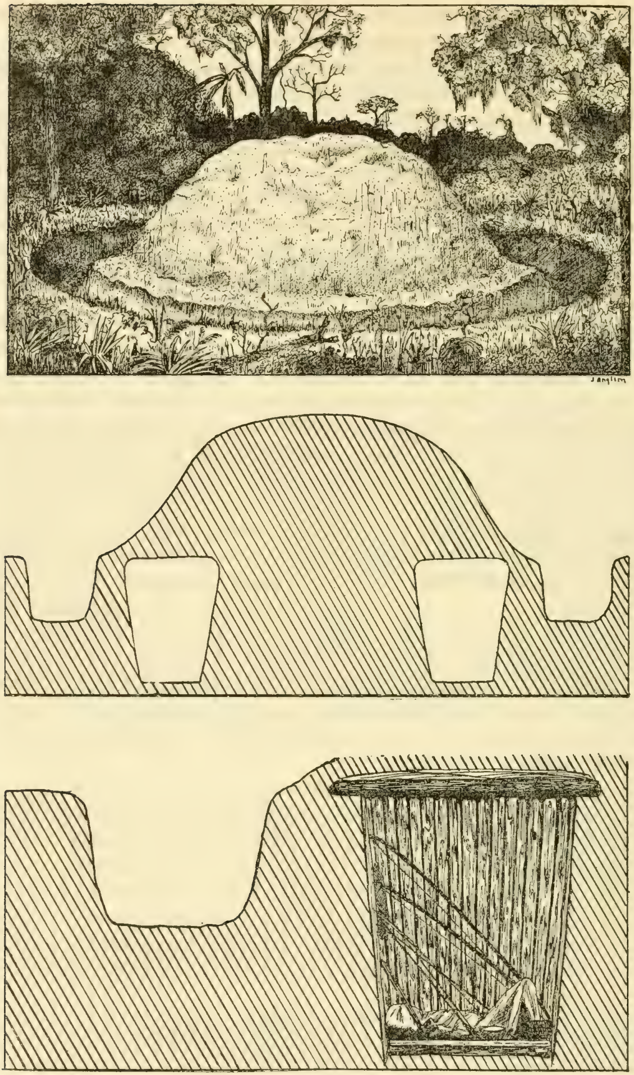

FIGURE 60.—*Caingang* burial mound. *Top:* View of mound shortly after completion. *Center:* Cross section of mound showing location of burial chambers. *Bottom:* Cross section of burial chamber in mound with body and accompanying grave artifacts. (Redrawn from Manizer, 1930, p. 767.)

precipitate it into a boiling pot. He also describes the slippery path from which it may fall into a swamp, where a huge crab awaits it (Nimuendajú, 1914, p. 372).

But at last the soul arrives at an underworld in the west, where it is day during our night, and where the forests teem with tapirs, deer, and other game. The souls of the aged become young again and live for the span of a human life. After a second death, the soul turns into a small insect, generally a mosquito or an ant, whose death ends everything; for this reason the *Caingang* never kill these insects (Baldus, 1937 c, p. 49).

WARFARE

A man who has been offended by some member of the community stands in front of his hut and in a loud voice enumerates all his grievances, sometimes bursting into a chant. He ends with threats against his enemy who, in the meantime, behaves in the same manner on the other side of the camp. After reciprocal abuses that often last a whole night, the challenger, followed by a group of supporters, advances toward the offender, who is immediately assisted by his own partisans. Both factions, armed with wooden clubs, fight a pitched battle, but are careful not to kill anybody. The sham battles of the *Caingang* have been described by many observers and may well be formalized brawls which have been interpreted as sportive games.

Feuds between *Caingang* groups may develop into regular warfare. When one group engages another, the members of the Kadnyerú moity subdivision always form the first line. The Kamé constitute the second line and enter the fight as a reserve to take the place of the exhausted Kadnyerú. Battles between related groups are always preceded by exchanges of insults and by other demonstrations of anger. Although no weapons but cudgels are used, blows are so lustily administered that many are seriously wounded or killed.

Wars against foreign tribes or the Whites were less strictly patternized. The *Caingang*, like all Indians, relied mainly on surprise attacks carried on at dawn. After a general discharge of arrows, the warriors, armed with their clubs, rushed against the enemy (Horta Barboza, 1913, p. 42).

Women and children were generally spared and were adopted by the victorious group. They cut off the heads of slain enemies but did not keep them as trophies.

ETIQUETTE

When a *Caingang* visits another village, he hides in the vicinity until able to announce his presence to some relative. The host receives him with his face covered with a cloth and does not look at his guest until food is served. If the visitor mentions the death of some relative, the women start to wail (Ambrosetti, 1895, p. 321).

ESTHETIC AND RECREATIONAL ACTIVITIES

Musical instruments.—Most information on *Caingang* musical instruments comes from Manizer (1934). The trumpets (fig. 59, *f*) have a bell made of a thick section of bamboo and the blow hole on the side, a rare feature in South America. The bell of some trumpets is made of the involucres of the coqueiro or gerivá palm (*Cocos botryophora*) (Teschauer, 1929, p. 348; Debret, 1940, pl. 11).

The clarinets are of the idioglotal type, that is, the tongue is split from the reed mouthpiece. The bell is either a gourd or a cowhorn. The *Caingang* also have an instrument which Izikowitz (1935, p. 254) calls "slit-valve." According to Manizer (1934, p. 312), it consists of a reed tube, closed at one end and crushed at the middle so that it bursts into longitudinal slits.

> In playing this instrument, an air current blown through the open end passes out through the slits thereby causing these to vibrate and produce a tone.

Similar instruments were used by the *Bororo* and the *Paressí-Cabishí.*

The *Caingang* are among the few South American Indians who play the nose flute. This flute, about 3 feet (1 m.) long, has two stops at the distal end and one at the proximal end; the blow hole is in the septum of the reed, which has been left in place (fig. 59, *e*). Another flute, reproduced by Izikowitz (1935, p. 299, figs. *a*, *g*) has the same number of stops but is blown sidewise (transverse flute). It is possible that the latter type is also blown with the nose. The specimen is decorated with a basketry cover.

The *Caingang* also play the notched flute (quena) with four stops. They do not seem to have known the panpipes, though Izikowitz (1935, p. 408) attributes it to them on very flimsy evidence. This instrument does not occur in the whole area, and its presence among the *Caingang* would constitute an inexplicable anomaly.

The rhythms of dances and songs are beaten with the gourd rattle and the stamping tube. The handle of the rattle is often trimmed with bark strips and feather tufts; the gourd itself is covered with engraved designs.

Songs.—The words of songs, generally improvised, refer to events taking place around the singers or allude to past wars, hunting, and other economic activities. Sometimes a singer enumerates his grievances against a fellow tribesman, an action regarded as a challenge. The chants of the *Aweikoma-Caingang* are a succession of meaningless syllables often sung on one note. These Indians seldom sing in unison.

Dances.—The members of a *Caingang* subgroup dance together. The dancers, about 3 feet (1 m.) apart, form two concentric circles around a line of fires, the men inside and the women outside. A singer in the center first shakes his rattle and, placing each foot alternately before and behind, dances sideways. At this signal, the other performers shake their rattles, and both circles begin to turn in one direction, following the rhythm of the song and rattle. Men without rattles strike the ground with stamping tubes. Behind them, women lift their forearms and move their empty hands slightly to each side in a kind of "blessing" gesture. When the leader is back to the starting point, he stops, and the others wait quietly until he is rested or is replaced by another leader.

Toys and games.—*Caingang* children are very skillful at filliping sticks, maize kernels, and small arrows resting on the bent arm. Maize shuttlecocks are batted with the palm of the hand. Children spin tops made of a clay whorl or a lump of wax on a stick.

The favorite *Caingang* adult sport is a mock battle between members of two communities, who hurl small clubs or, at night, firebrands at each other. Although these weapons may wound or even kill, casualties are not resented and do not call for blood revenge. This sport is played on open ground where heaps of clubs have previously been deposited. Women, protecting themselves with bark shields, run among the players to pick up and hand the clubs to their men. The *Aweikoma* throw stones wrapped in small fiber bags, which are parried with short clubs. The *Caingang* are also fond of wrestling.

Narcotics.—A great many stone pipes have been found in the *Caingang* area—a puzzling fact since smoking has not been observed among these Indians.

Drinking and intoxicants.—The *Caingang* prepare intoxicants from maize, sweet potatoes, pine nuts, honey, and the fruit of several species of palm, especially burití (*Mauritia vinifera*) and jussara (*Euterpe* sp.). Maize is slightly roasted over ashes, ground, and boiled in large pots for about a night. The next day part of the mass is chewed, then boiled again with the remainder. Shortly before the feast, the liquid is transferred to a huge trough made of a tree trunk and half buried in the ground. The liquor is heated by a fire built around the trough or by red-hot stones or potsherds which are thrown into it. During 2 or 3 days of fermentation, men dance around the beer, singing, shaking their rattles, and beating the ground with the stamping tubes.[6] The beer is often mixed with honey.

The *Aweikoma-Caingang* start to prepare their mead a month before its consumption. A mixture of honey and water, to which they add the juice of a fern to "make the beer red," is fermented in wooden troughs from 5 to 6 feet (1.5 to 1.8 m.) long made of tree stumps hollowed out by burning and chopping, then closed at both ends with wax. To accelerate fermentation, the beverage is heated every 3d day with red-hot stones and then covered with pieces of bark.

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[6] Koenigswald (1908 b, p. 45) distinguishes three kinds of beer: Goya-fá, made of naturally fermented maize meal; quequi (Kiki), prepared with maize and honey; and goya-kupri, made of chewed maize.

COMMUNICATION

The *Caingang* leave messages in symbolic code for those who will follow the same path. A stick with honey indicates where a bees nest has been found; dolls and sticks represent a feast to which some group is being invited; an inclined stick shows the time of day at which some event took place; feathers scattered on the ground tell of a successful hunting party, etc. (Manizer, 1930, p. 790). Lozano (1873, 1:425) stated that to declare war, the *Guayaná* (i. e., the *Caingang*) stuck an arrow into a tree near a path followed by their enemies. A circle of maize cobs on the ground or hanging from a tree was an invitation to a drinking bout.

RELIGION

Religious beliefs.—The *Aweikoma* conceive the world to be strongly animistic, peopled with ghosts (kuplêng) and spirits (nggïyúdn) of all sorts who dwell in trees, rocks, mountains, stars, winds, and in large and small animals. To meet a spirit is, as a rule, an ominous event. But spirits may be friendly and appear to a man to offer their aid. Those who are assisted in hunting by a guardian spirit share with it the game which they have killed. A man may even adopt a spirit child and place it in his wife's womb.

Aweikoma-Caingang share the widespread belief that all animals have "masters," that is to say, spirits that control and protect them. Such spirits are willing to give up some of their kin to satisfy men's needs, but are angered if people destroy them wantonly or if hunters refuse an animal "offered" to them.

Shamanism.—The *Caingang* shaman consults spirits at night, puffing his pipe until he is surrounded by a cloud of smoke. The spirits talk to him in long whistles and tell him where to find a favorable hunting ground or abundant honey. They may also reveal the outcome of an undertaking involving the band.

Shamans are also doctors, but this role is less conspicuous among the *Caingang* than elsewhere and is even absent among the *Caingang* of Palmas and of São Paulo. Among the decadent *Aweikoma-Caingang*, observed by Henry (1941, p. 76), shamans only treated members of their immediate family and did not receive a fee for their cures. The shaman knows many magic remedies, generally herbs, the virtues of which have been revealed to him by some spirit. A certain grass, said to be the favorite food of tapirs, is endowed with great medicinal virtues. It is used not only to cure but also to prevent sickness (Henry, 1941, p. 83). Massages play a great part in therapeutics. Sometimes these are so violent that the practitioner steps on the patient's stomach. The skin is frequently rubbed with pulverized barks or plants before the treatment. Burning herbs are used therapeutically, particularly for wounds. A patient bitten by a snake is laid upon a slanting platform over a fire and given warm water to drink to make him vomit. Manizer (1930, p. 784) was impressed by the number of people whose heads, arms, or legs were swathed in *Philodendron* for therapeutic purposes. To lessen fatigue on a long walk, the Indians bandage their legs up to the hip with tight braids. (On *Caingang* medicine, see Paula Souza, 1918, pp. 750–753.)

Bloodletting, which is practiced with a flint flake or a piece of glass, is a common cure for many ailments. Like many Indians, the *Caingang* treat fever with cold baths. Breathing on the affected spot is a common means of assisting a suffering person. Wounds are sprinkled with pulverized jaborandy powder.

When illness is caused by the loss of the soul, the patient may recover if appropriate words are spoken to induce the soul to return. It is often promised food. If the shaman's diagnosis reveals that the disease has been brought about by invisible missiles shot by a spirit, the cure consists of extracting them with the mouth. This procedure, however, was observed only among the *Aweikoma-Caingang* of Santa Catarina.

Magic practices.—To drive clouds away, old women blow against the right hand and then wave it toward the clouds, spreading the fingers as if to disseminate their breath. When the *Aweikoma-Caingang* desire rain, they put their mouths to the water and blow. They take some in their hands and cry, as they throw it upward, "Look here? Do like this." (Henry, 1941, p. 94.) Ashes thrown into a river are expected to stop its rise.

Divining.—According to Lozano (1873, 1:427), *Guayaná* shamans drank maté in order to consult spirits. Answering questions put to them by their clients, the shamans always said, "The grass [maté] told me this or that." Among modern *Aweikoma*, a man may be requested to drink maté and to belch while he is asked questions. A strong belch is interpreted as "No" and a weak one as "Yes" (Henry, 1941, p. 88).

In order to know which animals will be killed and where they will be found, the *Aweikoma-Caingang* set fire to a heap of pine-wood charcoal. The size of the spark corresponds to an animal species and the place where it twinkles indicates where the game will be slain.

The *Caingang* of São Paulo believe that old women have the power of foretelling the future in dreams which they induce by taking the pulverized leaves of an unknown plant.

Cult of the dead.—This cult is "the foundation and strongest expression of the spiritual culture of the *Kaingang*" (Baldus, 1935, p. 52), as the whole community takes part in the ceremonies, and children are at this time assigned by their fathers or others to moiety subgroups.

The aim of veingréinyã, the main ritual, is to break the bonds uniting the living with the ghosts, who are driven to their last abode, where they remain harmless. It takes place when the maize is green and pine nuts are ripe, that is, sometime between the middle of April and June. It is organized by mourners for a parent, a sister, or a son, but never for a wife or a daughter; according to Manizer, the initiative is taken by a distant relative.

The green bough placed above the tomb announces the coming performance; the news of which is carried to nearby settlements by messengers appointed by the "master of the dance." One of the heralds blows a horn; another informs the gathered listeners of the date.

In the meantime, the organizer piles up wood and gathers honey and maize, kept in pots in a special place, for liquor. For 3 days before the festival, men dance around these containers, crying and singing funeral songs. The fermented beverages, poured into large troughs dug out of bottle-tree trunks, are heated by throwing red-hot potsherds into them. During the night before the feast, the organizer and his assistant go to the cemetery to cover the grave with earth.

In the morning, the trough is dragged to the plaza and food heaped around it. Men sing and beat the ground with a stamping tube.

On the day before veingréinyã, the visitors, blowing horns and bamboo flutes, arrive and are met by their hosts and treated to beer. The following afternoon, the members of the moiety subgroups, adorned with their distinctive facial paintings, are led separately to the cemetery by relatives of the deceased. At the head of each moiety are a singer and three dancers, as well as the close relatives. On the way, the singer with his subgroups stops by every tree at which the corpse bearers have rested en route and sings a song of meaningless syllables, shaking his rattle and kicking his feet back and forth. After this musical interlude, they resume marching, but the other moiety has to go through the same ceremony. When the first moiety reaches the cemetery, the same dance is performed over the grave, the singer standing over the head of the deceased. The remainder of the crowd remains outside the cemetery. Then the other moiety dances over the grave. When the ghost is thought to have been expelled, everyone shouts for joy and runs in all directions.

The moieties join, and the mixed sounds of "flutes and laughter and cries were heard all over the place." The singers and dancers receive liquor until completely drunk. Later the moieties dance in a double circle around bonfires lit on the plaza; finally, everyone drinks to his heart's content.

A few variant details are given by Manizer (1930, p. 787). The relatives of the dead, who remained in their huts with the head covered with blankets, are forced to drink beer until they lose consciousness. Those who have gone to the cemetery paint black strokes over their bodies. Soon after, many pairs of participants, standing face to face, cry out in turn, "xogn, xogn," while the spectators sing lugubrious melodies. Then everyone dances counter-clockwise around the fire, keeping time with his bamboo tube.

MYTHOLOGY

The mythology of the *Caingang* is known mainly through a few myths collected by Borba (1904) and summarized here:

Origin of agriculture.—The Indians suffered scarcity of food. A chief told them to cultivate a piece of land by fastening a creeper around his neck and trailing him on the ground. They did so, and 3 months later his penis produced maize, his testicles beans, and his head gourds.

Origin of fire.—Tejetó transformed himself into a white urraca (bird) and let himself be carried by a brook flowing by the house of the Master-of-fire, whose daughter picked up the bird and dried him by the fire. Tejetó stole an ember and was pursued, but hid in the crevice of a cliff. To strike him, the Master-of-fire thrust the end of his bow into the crevice. Tejetó made his nose bleed and smeared the bow with the blood. The Master-of-fire, convinced that he had killed the thief, went away. Tejetó kindled the dry branch of a palm. Since then men have had fire.

The deluge.—There was in olden times a great deluge. From the waters there emerged only the summit of the mountain Crinjijinbé, toward which the Kayurukré and the Kamé swam, with firebrands in their mouths. The Kayurukré and the Kamé were drowned, and their souls went to live in the center of the mountain. The *Caingang* and some *Curuton* or *Aré* arrived at the summit of Crinjijinbé. They remained there several days crouched in the branches of a tree or reposing on the ground.

The saracurás (a kind of bird) came with baskets full of dirt and began to fill the sea. They were aided in their work by the ducks.

The *Caingang* who were on the ground could leave, but those who had climbed into the trees were turned into monkeys, and the *Curuton* were changed into owls.

The *Caingang* established themselves in the vicinity of the Serra of Crinjijinbé. The Kayurukré and the Kamé left the mountain, the former by a smooth and level path, and the latter by a rugged trail, whence the small feet of the Kayurukré and large ones of the Kamé. Where the Kayurukré had been, a river gushed through the pass, but the place from which the Kamé emerged remained just as it was. That is why they continue to go to ask water of the Kayurukré.

The *Caingang* ordered the *Curuton* to seek the baskets they had left at the foot of the mountain; the latter did not want to go back. Ever since then, they have lived separated from the *Caingang*, who considered them fugitive slaves.

The creations of Kamé and Kayurukré.—Two brothers, Kamé and Kayurukré, after having left the mountain, created jaguars from ashes and coals; then the antas or tapirs from ashes only. The tapir, who had a small ear, heard that he was ordered to eat herbs and branches, when the Creators had told him to subsist on meat.

Kayurukré also made the great anteater, which he did not have time to finish, whence his toothless jaw and his tongue, which is only a little stick that Kayurukré in his haste put in his mouth.

Kayurukré made the useful animals, among them the bee; Kamé, the harmful creatures (pumas, serpents, wasps, etc.).

The brothers resolved to kill the jaguars. They made them get on a tree trunk thrown into a stream. Kamé was to push the trunk and make it drift away. Some jaguars clung to the bank and Kamé, frightened by their roaring, did not dare to push them into the water. It is on account of his faintheartedness that jaguars still exist.

The people of Kayurukré and those of Kamé intermarried. As the men were more numerous than the women, they allied themselves also with the *Caingang*. From that time on Kayurukré, Kamé, and *Caingang* considered themselves kinsmen and friends.

In olden times, the *Caingang* did not chant or dance. One day Kayurukré, going to hunt, saw some branches dancing at the foot of a tree. One branch was crowned with a gourd, which tinkled and marked the rhythm of a melody chanted by an invisible being.

Kayrukré's companions took the branches (stamping tubes), while he took the gourd (rattle). They danced with these instruments.

A few days later, Kayurukré met the great anteater, who stood erect on his paws and began to chant. His song was identical with the one that Kayurukré had heard the day he saw the sticks dancing. Thus he learned that the mysterious chanter was the great anteater. The anteater demanded of him his sticks and then danced. He predicted that his wife would bear him a boy.

The *Aweikoma-Caingang* of Santa Catarina tell only confused origin myths, but have stories of animals, among them how Hummingbird hoarded water. Traditions of internecine feuds, however, loom most prominently in their lore (Henry, 1941, pp. 124–152; 1935, pp. 177 f., 211).

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THE NORTHWESTERN AND CENTRAL GE

By Robert H. Lowie

TRIBAL DIVISIONS

Within the *Ge* family may be recognized five major branches—the *Northwestern*, the *Central*, the *Southern*, the *Jeicó*, and the *Camacan* (*Kamakan*)—linguistic and geographical classification happening to coincide. Of these, the *Northwestern* and *Central* branches are too closely allied in culture to warrant separate treatment.

Northwestern Ge.—This branch embraces four subbranches, the *Timbira*, *Northern Cayapó*, *Southern Cayapó*, and *Suyá* (map 1, *No. 12*; map 7).

The *Timbira* habitat, from latitude 3° to 9° S. and from longitude 42° to 49° W., falls preponderantly into the steppe zone, though a few tribes—notably the *Western Gaviões*—are forest dwellers. The *Timbira* comprise a western and an eastern section, the former represented only by the *Apinayé*, traditionally descendants of an *Eastern Timbira* tribe (the *Cricatí*), who occupied the triangle between the Tocantins and lower Araguaia Rivers to about latitude 6° 30′ S., sometimes transgressing the boundary in a northwesterly direction. In some respects they approximate the *Northern Cayapó*. The *Eastern Timbira* live east of the Tocantins River and when first mentioned (1728) even ranged in some measure east of the Parnahyba River. Besides extinct groups, they include 15 tribelets, some dialectically differentiated and often warring against one another. Of these the Neo-Brazilians—not the natives—unite the *Kéncateye*, *Apányecra*, and *Ramcõcamecra* as "Canella," a name often conveniently applied to the last-mentioned and best known of *Timbira* groups. Their ancient habitat lay between the Itapecurú and the Corda Rivers as far north as lat. 5°50′ S. Their economy prevented fixity of settlement within this area; prior to 1934 they had occupied for some time the village of Ponto, 49 miles (78 km.) south of Barra do Corda.

The *Northern* and the *Southern Cayapó* (*Kayapó*) are distinct, though related, peoples, each split into an indefinite number of hordes.

The *Northern Cayapó* (lat. 10° S., long. 52° W.) formerly designated in Matto Grosso as *Coroá* and in Pará as *Carajá*, figured west of the Araguaia River as *Cradahõ*, a name bestowed by the true *Carajá*.

Since the 17th century, the several hordes have been found from the lower Xingú River southward to the vicinity of Cuyabá, reaching affluents of the Tapajóz River on the west and the Araguaia River on the east. These local groups were by no means under a single head; indeed, the animosity between the *Górotire* and the *Pau d'Arco* hordes persists.

The *Southern Cayapó* (lat. 20° S., long. 50° W.), now extinct, are also known since the 17th century in several districts jointly representing an immense area: in southern Goyaz, along the upper Araguaia and Paranahyba tributaries; in southeastern Matto Grosso; in northwestern São Paulo; and in western Minas Gerais, between the Paranahyba River and the Río Grande.

The *Suyá* (lat. 13° S., long. 52° W.) live below the confluence of the headwaters of the Xingú River. They are described elsewhere (Handbook, vol. 3).

Central Ge.—Two sections are recognized—the *Akwẽ* and the *Acroá*. The *Akwẽ* embrace the *Shacriabá*, the *Shavante* (lat. 11° S., long. 49° W.), and the *Sherente* (lat. 11° S., long. 48° W.). Of these, the extinct *Shakriabá* once inhabited the southern part of the Tocantins-São Francisco watershed (map 7).

The term *Shavante* has been applied in several senses, e. g., to the *Shavante-Oti* (lat. 23° S., long. 51° W.), a group of isolated speech in São Paulo and to the also probably isolated *Shavante-Opayé* (lat. 21° S., long. 54° W.) in southern Matto Grosso. In other words, these two and the *Shavante-Akwẽ* are in no way related.

There has been further confusion because the *Shavante-Akwẽ* have been also called *Crixá* (or *Curixá*), *Puxití*, and *Tapacuá*, so that these synonyms appear as names of separate tribes. On the other hand, several unrelated tribes have been confounded with the *Shavante* proper, e. g., the *Canoeiro* (*Tupí*), the *Nyurukwayé* (probably *Timbira*) between the *Apinayé* and the *Shavante-Akwẽ*, and Castelnau's enigmatic *Orajoumopré*.

The history of the *Shavante* and the related *Sherente* is closely interwoven. Earlier writers were not clear as to a distinction between them; before 1812 no one assigned distinct territories to each, and in 1824 Cunha Mattos still credited them with the same habitat, though with separate villages. In 1814, Castelnau regarded the Tocantins River as dividing the *Shavante* to the west from the *Sherente* to the east. After 1859 the two are always sharply distinguished, for about then the *Shavante* definitely went west across the Araguaia River, while the *Sherente* remained in presumably their ancient habitat, on both sides of the Tocantins River, between lat. 8° and 10° S. Notwithstanding their political differentiation, the *Sherente* and *Shavante* are essentially one in speech and custom.

The *Acroá*, differing considerably from the *Akwẽ* in language, embraced the *Acroá* proper and the *Guegué*, who shared the same dialect. The *Northern Acroá* (lat. 12° S., long. 47° W.) and *Guegué* (lat. 10° S., long. 46° W.) dwelt in the 18th century west of the São Francisco River, were settled in Piauí, and became extinct by 1850. The *Southern Acroá* (lat. 16° S., long. 47° W.) were settled in Goyaz, where a few individuals seem to survive near Duro.

ARCHEOLOGY

In *Apinayé* territory, quantities of pottery sherds, some with plastic decoration, indicate prior occupation by an alien people. Within the *Northern Cayapó* area there are likewise remnants of earthenware representing sundry local types. Their incised and plastic ornamentation raises them above the ceramics of the *Cariban Arara* and the *Tupí* sprinkled over the *Northern Cayapó* habitat, but does not approach the level of finds made at the mouth of the Xingú River. Occasionally, there are traces of secondary urn burial. The sherds are not restricted to the major rivers, but occur likewise far up minor tributaries. Similar finds were made by Kissenberth (1912 a) on the Arraias River, an affluent of the Araguaia River. In short, a large area was at one period held by potters, i. e., by non-*Ge*.

Nimuendajú conjectures that in the area of the historic *Cayapó*, who presumably spread from the southern steppes, the pottery-making peoples occupied the forest region in solid masses, but later succumbed to the *Cayapó*. The several *Tupí* tribes, such as the *Yuruna* and *Shipaya*, entered the territory by canoe, and, thanks to their skill as boatmen and the *Cayapó* lack of canoes, were able to maintain themselves into the historical period.

HISTORY OF THE GE

The history of the *Akwẽ* has already been sketched. The *Timbira*, first mentioned in 1728 as extending east of the Parnahyba River, are recorded as hostile natives of Piauí as late as 1769. Four streams of colonists from São Luiz de Maranhão, Pará, Goyaz, and Bahía brought these Indians into contact with Whites, who by 1810 formed a solid zone across southern Maranhão. That was the period of armed expeditions, often slave-raids, against the *Timbira*, on the pretense that as "*Botocudos*" the Government had excluded them from the prohibition of slavery. The Indians often defended themselves successfully, but, by the middle of the century, disease, White treachery, and wars had begun to sap their resistance.

The hostilities, however, were by no means exclusively with Whites, for these tribes constantly warred against one another, the *Crahṓ* soon making common cause with the settlers against their fellow

Timbira. More intelligible is the *Ramcócamecra* aid to government troops suppressing a revolt of the alien *Guajajara* (1901). However, the *Ramcócamecra*, at one time bitter enemies of the *Chacamecra*, incorporated the handful of survivors from that tribe, though preserving a sense of their distinctness. On the other hand, in about 1850 the *Western Gaviões*, the only *Timbira* now living unconfined, withdrew from their eastern kinsmen, the *Pucóbye*, of the Grajahú steppes, into the inaccessible forests.

Population.—Only a few figures are available to indicate the population of the several tribes now and in their heyday. In recent years the *Ramcócamecra* have numbered about 300; the *Apinayé*, 160; one *Górotire Cayapó* (Northern) band was estimated at 400, another at 800. These figures should be compared with Mattos' estimate of the *Apinayé* in 1824; viz, 4,200 in four settlements ranging from 500 to 1,400 each. Correspondingly, the total population of *Sherente* in that year was set at 4,000; that of the *Shavante* toward the end of the 18th century at 3,500; and a census of the *Sherente* at Piabanha in 1851 still yielded 2,139.

SOURCES

The oldest chronicler of the *Timbira*, Ribeiro, served among them from 1800 to 1823 (Ribeiro, 1841, 1870). In 1818 and 1819 Martius and Spix traveled widely in the area, the former being responsible for the establishment of a *Ge* linguistic family (Martius, 1867; Spix and Martius, 1823–31). Pohl's researches, taking in also the *Southern Cayapó*, date back to the same year (Pohl, 1832–37). Other distinguished travelers to *Ge* tribes include Saint-Hilaire in 1847–48 (Saint Hilaire, 1830–51); Castelnau in 1844 (Castelnau, 1850–51); Coudreau in 1896 (Coudreau, 1897 a, b); Von den Steinen (1894); and Krause (1911). More recent are Snethlage's (Snethlage, 1931) and Nimuendajú's investigations, the latter forming the basis of the present study (Nimuendajú, 1939, 1942, and mss.). His data on the *Northern Cayapó*, especially on the *Górotire* subtribe, are much scantier.

CULTURE

SUBSISTENCE ACTIVITIES

Farming.—Contrary to widespread notions, the majority of the *Ge* have been farmers, especially the *Apinayé*, with evidence for extensive manioc plantations going back to 1793. However, all the better-known groups described in this article raise bitter and sweet manioc, maize, sweet potatoes, and yams. It is entirely improbable that this is due to *Tupí* example. In the first place, *Ge* emphasis is on sweet potatoes and yams, which virtually furnish their daily bread. Second, the grated manioc tubers were not originally prepared with the basketry press, but by twisting in a band of burití bast—a technique common to the *Northern Cayapó*, *Timbira*, and *Sherente*. Only recently the *Eastern Timbira* have adopted the basketry press from Neo-Brazilians; another recent loan from this source, now dominant, is rice. Ethnographically, the most interesting plant raised by our *Ge* is a species of *Cissus*, a creeper whose starchy tendrils are baked by the *Timbira*, the *Sherente*, and the *Northern Cayapó*. Quite unknown to Neo-Brazilians and *Tupí*, the plant represents a clearly autochthonous domestication. The *Northwestern Ge* probably knew cotton before the advent of civilization, for they have a common word for it and use it extensively in native industries and ceremonial.

The gallery forests have been essential to *Timbira* agriculture since they offer the only soil in the area cultivable with hardwood dibbles. Accordingly, clearings are made in the tall timber along the watercourses, and when the distance to forested land becomes prohibitive, the village moves to a new spot. Thus the *Ramcốcamecra* migrate about every 10 years from one of two streams to the other, allowing for reafforestation.

Among the *Timbira* both sexes plant; the women do nearly all the weeding and all the harvesting. The division of labor among the *Sherente* was affected by their scheme of men's associations. (See below.)

Collecting wild foods.—Notwithstanding husbandry, wild species continued to loom large in aboriginal days. Here once more the gallery forests were of extraordinary importance for they harbored the babassú (*Orbignia* sp.) and the burití (*Mauritia vinifera*), sought alike for food and for textile materials. Anciently, wars were waged over the possession of babassú stands. Many other wild species were exploited; and *Apinayé* women going toward the steppe still take a bowl along for collecting whatever they may find. The men, at least among the *Timbira*, seem to have gathered nothing but wild honey.

Hunting.—Except for the occasional digging up of armadillos from their burrows by women, the chase was a masculine occupation and an important one. The men hunted practically all mammals and birds except vultures.

Bows, principally of páo d'arco (*Tabebuia impetiginosa*) wood, are the chief implements; those of the *Western Gaviões* attain a length of 8 feet 5 inches (2.5 m.), as compared with the *Canella* maximum of 6 feet (1.8 m.). A round cross section occurs among the *Crahố*, but generally the *Timbira* flatten the string side, and the *Northern Cayapó* section is almost rectangular. The *Canella* string is of tucuma fiber. Hunting arrows are of cane (*Guadua* sp.), but the *Western Gaviões* substitute *Gynerium saccharoides* as better fitted for their giant bows. The typical *Timbira* arrow lacks a special head, the end of the case shaft being beveled into a point, but other forms occur, including bamboo knives for arrowheads, presumably more for warfare. There are two feathers; *Timbira* use tangential bridge feathering; only the *Chacamecra* had in addition borrowed the sewed feathering technique of the *Gamella* of Codó. The *Northern Cayapó* shafts are all of taquara cane, whose root end forms the knob of bird arrows. Separate heads may be of dark wood, bamboo, or bone. A bamboo head, either flat or strongly convex, is tied to a wooden foreshaft stuck into the cane shaft. Bone heads are either set on a wooden foreshaft or laterally fastened to it with string and rosin so as to have the rear tip project as a barb. A ray sting also forms a barb (Krause, 1911, pp. 391–393).

Traps were rare. The communal drive with grass firing was very popular. Deer were commonly shot from a fixed station in a tree. Anteaters are still clubbed, as are armadillos, which often have to be dug from their burrows. Disguises of palm grass were donned for stalking rheas.

Before their discovery, all the *Ge* probably lacked dogs; even now the *Timbira* very rarely use them for the chase. From Whites they have adopted a few pigs and fowls, and various animals, especially tamed peccaries, are kept as pets.

Fishing.—Hooks of indigenous make were apparently lacking throughout our area, The *Sherente* treated the trapping and drugging of fish as a family affair; men shot fish with bow and arrow. For the *Northern Cayapó*, fishing was important; for the *Timbira*, insignificant. There is no evidence of anchored *Timbira* nets, but scoop nets were used after drugging. Besides a species borrowed from *Neo-Brazilians*, the *Timbira* use the timbó creeper to narcotize the fish.

Cooking.—The preparation of food sharply distinguished the *Northern* and *Central Ge* from the *Tupí*. Lacking pottery, the *Ge*, including the *Southern Cayapó*, steamed or baked food in earth ovens (Nimuendajú, 1939, p. 34; Saint Hilaire, 1830–51, 2:116) between the heated ground and the hot rocks or clay lumps. However, there was also broiling on a spit and roasting on a grate. Even stone boiling in a pit filled with water was known, specifically for bacaba fruits.

Beverages.—These *Ge* had no intoxicants, water being their only drink. Their public feasts are thus merely banquets, not carousals. The *Northern Cayapó* store water in large gourds.

HOUSES AND VILLAGES

These *Ge* place their houses along the circumference of a circle (*Timbira*, *Northern Cayapó*) or enlarged semicircle (*Sherente*), the arrangement being correlated with social structure. Thus the *Pau* *d'Arco Cayopó* and the *Ramcôcamecra* moieties occupy, respectively, the eastern and western half of the circle. The *Ramcôcamecra* central plaza, the site of the council and of dancing, is connected with each of the peripheral houses by a radial path; however, an open space in front of these dwellings yields a wide boulevard or ring street. The *Sherente* moieties are associated with north and south, and the originally semicircular plan has assumed horseshoe shape by the addition to each moiety of an alien group. Here, moreover, there is a central bachelor's hut; and the several associations have each its distinctive meeting place within the circumference (fig. 61). The

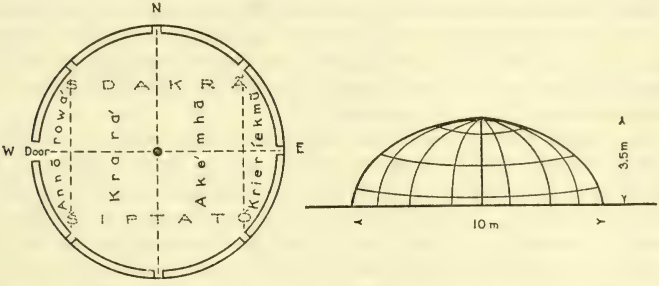

Figure 61.—Diagram of *Sherente* bachelors' hut. The positions of the four societies are divided by moiety: shiptató and sdakrã. (After Nimuendajú, 1942, fig. 2.)

Northern Cayapó have a sizable bachelor's and men's hall in the center, which in any case is the young men's dormitory (Krause, 1911, p. 374); some *Pau d'Arco* settlements have two men's houses. The *Canella* age classes have their special sites round the small circle reserved for the council at the center.

A settlement must be near gallery forests for farming; another consideration is the availability of water, which varies considerably. The *Cricatí* of the Pindaré River headwaters rely on water holes dug at the bottom of a dried-up creek whereas the *Apinayé* get their supply from permanent brooks.

The *Timbira* erect thatched, rectangular, hip-roofed houses (pl. 97) shared with *Tupí* neighbors and, despite native denial, suggesting a Neo-Brazilian model. The unquestionably aboriginal conical form appearing in some ceremonies and the beehive hut, about 6 feet (1.8 m.) high and covered with palm fronds, that serves as a temporary shelter on trips away from home, would be inadequate both during the rainy season and for the numerous social gatherings served by contemporary dwellings. The ancient type of *Timbira* house thus remains an enigma. The *Northern Cayapó* visited by Krause spoke of more substantial structures for rainy season use. What he actually saw during the dry season were elongated huts along the village circumference, with the outer side longer than the inner and entrances at the two narrow sides. The framework consisted of two series of forked posts set in a curved line, the outer somewhat longer than the inner, with transverse sticks connecting the forks. Over this structure, saplings set in the ground outside both lines of posts were arched and lashed together with bast over the taller series of posts. Palm fronds leaned against this skeleton provided the covering, but openings were left between two successive bunches of this foliage, probably to mark off the several otherwise unpartitioned family compartments (Krause, 1911, p. 372 f.).

Although the extended family is nowhere of great importance, the several matrilineally related families do occupy a common house among the *Apinayé* and *Canella*, and this is conceivably the situation described for the *Northern Cayapó*. On the other hand, the *Sherente* have single families under one roof.

Furniture.—The *Timbira* do not manufacture cotton hammocks, though in temporary camps they will interlace burití leaflets into a hammock. *Sherente* hunters likewise suspend a temporary contraption of this type. Of the *Timbira* only the *Cre'pumcateye* regularly sleep in hammocks (of *Guajajara* origin), the true bed of the area being a platform of closely laid burití leafstalks on four forked posts with two cross beams. It is about 20 inches (50 cm.) above the floor, but young girls construct theirs below the roof at an elevation of 6½ feet (2 m.), partitioning it off with mats, and climbing up on a notched log. The width varies from 20 inches (50 cm.) for a single person to 20 feet (6 m.) for a whole family. Boys and youths generally sleep outdoors in the plaza unless driven to a platform bed by the rain. For blankets there are burití mats, but at night fires are kept up to warm the bare feet. The *Southern Cayapó* are also credited with platform beds (Saint-Hilaire, 1830–51, 2: 104); the *Górotire* are said to sleep on foliage, fronds, or bast.

These beds also serve as benches and tables, much of the domestic life being spent there.

For storage there are no scaffolds, objects being simply thrust into the roof or wall thatch, suspended in bags or baskets, or put under the beds. The earth oven is invariably several yards behind the dwelling, except that for ceremonials it may be in front, on the inner margin of the boulevard.

DRESS AND ORNAMENTS

The complete nakedness of both sexes contrasts with the profuse bodily decoration. The *Northern Cayapó* are broadly representative of the area. The men wear penis sheaths, which do not conceal the prepuce, and labrets (pl. 98, *top*, *right*) in the lower lip; the earplugs (pl. 99, *top*, *left*), corded sashes, and fringed skirts of these people are also badges of status. There is great variation of form. The labrets may be of wood or crystal; peglike, T-shaped, cylindrical, or discoidal; and sometimes they terminate in an elongated process sharply set off from the labret proper. Only children wear ear ornaments in this tribe. Typical is a 2- to 3-inch length of cane for the perforated lobe, with a cord dangling from one end, a cord wrapping round the rod, and a disk of mother-of-pearl at the other end, from which there often rises a feather or elaborate combination of feathers. Little girls wear a red or black sash (fig. 62) of cotton string, little boys a skirt of bast or cotton fiber. Diadems of feathers, variously attached, and other feather head ornaments are worn sporadically. Feathers, sometimes mounted on a stick, are also worn at the nape of the neck, suspended from a neck cord. Other decorations in the back of the neck include miniature mats and cotton tassels. True necklaces are rarer, but of various types, such as series of shell disks and rows of little sticks plaited together into a firm ribbon. Armlets, more common on the forearm than round the biceps, consist of a coil of bast, wrapped with red cotton cordage or covered with decorative twilling in red and black bast (Krause, 1911, pp. 98, 376 f.)

Not all these details are shared by other groups; e. g., of the *Timbira* only the *Apinayé* wore labrets—like the *Cayapó*—in the lower lip. On the other hand, a number of distinctive traits appear. A hair furrow and perforated ear lobes are national badges of the *Timbira*, the eastern tribes piercing only the lobes of boys, who must undergo the operation before initiation.

The *Eastern Timbira* of all ages and either sex have their hair cut so as to leave a furrow round the head, except for an occipital gap lacking among the *Apinayé*. The coarse, stiff Indian hair, unless oiled, yields the caplike effect pictured for 17th-century *Otshucayana* (*Tarairiu*). In the back, the hair is allowed to grow long. Only women are hair cutters in *Timbira* tribes. The *Canella* have double combs made of little rods. The sparse beard is rarely plucked out nor as a rule is axillary or pubic hair removed. But eyebrows are considered abhorrent, and eyelashes, too, are pulled out.

The perforation of the lobe is an elaborate rite, which culminates in the insertion of plugs varying in diameter from about one-half inch (1.25 cm.) among the *Põrecamecra* to as much as 4 inches (10.16 cm.) among the *Crahõ* and *Canella*, who prize immense disks. When the desired extension has been achieved, the ornament is worn only at festivities, so that normally the lobe forms a loop, usually slung round the upper edge of the helix.

Tattooing, so far as practiced, is borrowed from the Neo-Brazilians.

Of pigments for body paint, red urucú and bluish-black genipa are shared with other Brazilians (fig. 63). The former, omnipresent among the *Canella*, is a prophylactic as well as an ornament; for coarser effects it is put on with the fingers, for the finer lines on the face with little rods. Genipa, though rare, is obligatory at some ceremonies. From the latex of a low steppe tree (*Sapium* sp.) a black rubber pigment is obtained, which may be applied mixed with pulverized charcoal, yielding a stain that lasts a week. A yellow pigment from the root of the urucú and white clay rarely serves for bodily embellishment, but frequently appears on objects. Some of the paints are applied with wooden forks and stamps.

Feathered decoration is prominent at ceremonies, falcon down being glued on certain participants with rosin. The *Apinayé* equivalent is to stick on the body vertical stripes of paty wool, i. e., the scrapings from leafstalks of the paty palm (*Cocos* sp.). Arara feathers are highly prized; an occipital ornament for *Sherente* women consists of nine such feathers inserted each into a bamboo tube, the containers being spread out like a fan.

TRANSPORTATION

Almost straight roads lead out from a *Canella* village toward the four quarters of the globe, the longest recorded being 10½ miles (17 km.) in length. They are cleared of growth about once every 5 years to the width of 23 feet (7 m.). Primarily racetracks, they ordinarily serve as highways. In addition, there are many trails through the steppe and gallery forest, leading to plantations and hunters' camp sites. The paths to the clearings are kept fairly wide and tidy so as to pave the way for women encumbered with full baskets.

The *Northern Cayapó* ford brooks and bridge deep dry beds with logs. The *Timbira* similarly cross swamps on extended tree trunks, and creeks on thick logs resting on props driven into the water and sometimes supplied with a railing.

Boats.—The *Ge* are notoriously deficient in watercraft. However, the *Suyá* shared the bark boats of upper Xingú River neighbors, and the *Apinayé* when first discovered navigated the Araguaia River in home-made dug-outs, presumably having acquired the art from the *Carajá*. Ousted from the large rivers by colonization, they have not a single canoe left (Nimuendajú, 1939, p. 4 f.).

Carrying devices.—The *Northern Cayapó* women transport their crops in narrow baskets only about 10 inches (25 cm.) in height suspended by a tumpline such as occurs commonly in the area. Other containers for carriage are round baskets, likewise furnished with a forehead band and plaited shoulder bags. Equivalents occur in other tribes (pl. 103, *bottom*, *right*).

The *Apinayé* carry children in a distinctive way: the infant sits on a burití-bast girdle, wide enough to accommodate him beside the mother's body, his legs dangling in front of it. On the other hand, the *Sherente* or *Eastern Timbira* child is supported by shoulder bands and straddles the mother's hip (pl. 104, *right*). Some of the *Timbira* interlace palm leaves into slings, others make cotton ones.

Crops are gathered in large carrying baskets, wild fruits in gourd bowls which, when empty, serve as women's caps. Game of the size of an agouti is transported in a palm-leaf basket plaited ad hoc, while larger beasts are dragged to the village boundary, whence the hunter's wife carried them home. The *Eastern Timbira* and the *Sherente* arrange large fish on special cords with a wooden pin at one end and a cross stick at the other, but the device is unknown to the *Apinayé.*

MANUFACTURES

The absence of pottery and loom weaving is typical of *Cayapó*, *Timbira*, and *Sherente.*

Basketry weaving.—*Canella* mats serving as bed sheets are either of babassú or anajá grass; those used as blankets are of burití bast. The technique is two-step twilling. Some Indians weave into the fabrics horizontal or vertical stripes or squares and paint them with yellow dots, strokes, and zigzags. The girl's girdle is composed of some 30 tucuma threads barely one twenty-fifth of an inch (1 mm.) in thickness, all carefully twisted on the thigh and wrapped together. Mats and most of the baskets are manufactured by men. Besides twilled cases for feminine oddments, coiled baskets are noteworthy because the technique seems lacking among the *Tupí.* Elliptical baskets of burití fiber are credited to the *Southern Cayapó* (Saint-Hilaire, 1830–51, 2:115).

The *Apinayé* men likewise manufacture all but baskets for provisional service, also all musical instruments; the women, like their *Sherente* sisters, make gourd bottles and bowls (pl. 98, *bottom, left*), and spin all the cotton thread.

It does not hold among these people that each sex makes the articles it uses: The *Sherente* men plait baby slings and some of the basketry, though the oval basketry bowls (pl. 100) are always women's work; further, the men make the dance rattle commonly wielded by women and all feminine ornaments.

Northern Cayapó basketry is also a masculine craft. Twilling is prominent, appearing in sleeping mats, arm bands, club wrappers, and carrying baskets. Notwithstanding the absence of looms, cotton is grown and spun into thread with spindles having either clay or stone whorls. For the *Southern Cayapó* Saint-Hilaire denies the cultivation and spinning of cotton.

Miscellaneous.—Stone techniques have been long superseded by introduced metal tools. A generation ago, the *Northern Cayapó* used stone ax blades only for cracking nuts, and lithic processes were applied only to make crystal labrets by percussion (Krause, 1911, p 395). Shell was used only for decoration. Woodwork included weapons, ear ornaments, mortars and pestles, as well as little troughs hollowed from the section of a tree trunk. Gourds—the larger used for water storage, the smaller as feather cases—were incised with designs.

Feathers are attached by diverse methods. They may be singly fastened to a cord in juxtaposition to one another or tied together in a cluster that is then tied to the cord. Again, the end of the quill is bent over the cord and tied to the quill singly; or, one continuous cord passes from quill to quill, tying each of them. Feathers may also be simply inserted into cane tubes or after previous attachment to a little stick. Red and yellow are favorite combinations in the use of feathers.

Fire making.—Before the adoption of Neo-Brazilian strike-a-lights, the *Ge* drilled fire, the *Canella* with a shaft of urucú wood 20 inches long (50 cm.) and a hearth of the same material and of about equal length. The pit of the hearth often has a lateral groove. On trips to plantations or for catching fish at night, the Indians carry firebrands. The fire is fanned with a quadrangular or hexagonal little mat of palm grass; the *Northern Cayapó* use two palm leaves on top of each other, the joined ribs providing a grip. Women normally fetch firewood, though a man will carry a heavy dry log.

Adhesives.—A rosin is smeared on the hands and mixed with chewed babassú seeds, forming a glue, to which down or paty wool may be stuck. Wax serves to seal the corded bags and gourds containing the next year's seed corn.

Rubber.—The *Apinayé* ingeniously manufacture rubber balls for a ceremonial game at the boys' initiation. The trunks of mangabeira trees (*Hancornia speciosa*) are tapped with stone knives, and the latex exuding is collected in gourd bowls. It is then smeared in stripes down the novices' bodies and limbs, which receive a second and third coat. In the meantime the novices shape balls about 1½ inches (4 cm.) in diameter from the hard clay of termite nests. The rubber bands are then simply rolled from the youngsters' bodies onto the clay. When the ball is sufficiently thick, the core is smashed, the fragments being removed by a little slit cut into the rubber rind. The opening is closed by supplementary rubber strips, the end result being a very elastic hollow ball (Nimuendajú, 1939, pp. 61 ff., illus. 11, 12). A similar technique is used by the *Sherente*.

POLITICAL ORGANIZATION

The *Timbira* and the *Northern Cayapó* are markedly separatistic. Autonomous *Apinayé* villages continue to display mutual repugnance, and even within the *Górotire* subtribe of the *Northern Cayapó* the several bands remain apart. Only the *Sherente* display a keener sense of unity: Their land is tribally, not communally owned, and villages cooperate in several ways. A council of the chiefs of all villages chose and deposed the chief of a particular settlement and appointed leaders in war. Again, all the *Sherente* took part in the major religious festival. Yet even they never had one paramount chief; and though there was no intratribal warfare, prolonged feuds were waged with the closely related *Shavante*.

Particularism was tempered among the *Timbira*, insofar as they willingly absorbed the remnants of once independent related tribes and recognized the intertribal institution of honorary chiefs, each appointed by an alien group to act in defense of its interests among his own people (Nimuendajú, 1938, p. 69; 1939, p. 19).

Chiefs are not negligible, but their authority is limited by a council and generally noncoercive. The recent *Canella* have three chiefs in one village, collaborating with a council of elders in preserving customary law. They lack emblems of dignity, work like commoners, and share food offerings to the council on equal terms with its other members.

While the *Canella* chieftaincy is unconnected with the dual organization, an *Apinayé* chief must belong to the Sapucaia chestnut moiety, which is derived from the Sun. He, too, enjoys no great prerogatives and was formerly aided by a council of elders. His most serious duty is to inaugurate steps against sorcerers, whose execution, however, has to be ratified by the people. Distinctive of the *Apinayé* is the office of a "counselor" and master of ceremonies, secretly chosen by the chief and elders; he constantly exhorts the tribesmen to maintain ancient usage. In a distribution of victuals, his share at least equals the chief's . The *Pau d'Arco* have a corresponding, but less important herald. Their council is mainly concerned with ceremonial matters; two chiefs are usually found in each village.

The *Sherente* chief, too, is limited by a council primarily expected to preserve the old festivals. They appoint the directors of ceremonial and the leaders of the men's societies. Here the chief receives a tasseled bow and other badges of office. He is a moderator in internal and external disputes, harangues the people on behalf of old custom and harmony, proceeds against sorcerers or other public enemies, and entertains distinguished visitors. Barring obvious incapacity of all proper successors, the office descends in the male line. The manifold activities of the men's associations in this tribe made their virtually lifelong leaders proportionately important. Further, two pĕkwa chosen from the associations act as peacemakers and are entitled to a special funeral feast.

The *Canella* have a curious honorary class called "hamrén," which includes the village chiefs; age-class leaders; the girls associated in pairs with the boys' initiation ritual; the above-mentioned consular courtesy chiefs; and the precentresses (but not precentors) in the daily dances. All these persons enjoy a certain esteem and are entitled to a special mode of burial and preparation therefor.

SOCIAL ORGANIZATION

Dual divisions and clans.—The three best-known tribes all have a dual organization, but with notable differences. The *Pau d'Arco Cayapó*, *Canella*, and *Apinayé* are matrilineal; the *Sherente*, patrilineal. The *Pau d'Arco*, *Canella*, and *Sherente* moieties are exogamous; their *Apinayé* counterparts do not regulate marriage. All three groups definitely localize their divisions in the settlement, but the *Canella* and *Pau d'Arco* place theirs east and west, respectively, the other tribes north and south. Only the *Sherente* subdivide the moieties into clans (not totemic)—four on each side, including one clan of alien derivation; further, symmetrically placed clans, narkwá, in complementary moieties owe each other certain services.

There are likewise differences in the associated symbolical and mythological ideas. The *Pau d'Arco* denote the eastern and western moieties as "upper" and "lower," respectively. The *Apinayé* call their moieties after two species of chestnut, sometimes contrasting them as Lower and Upper, but they derive them from Moon and Sun and associate them, respectively, with black and red paint. The *Sherente* share the celestial connections and the precedence of the Sun moiety, though without limiting the chieftaincy to it. But the association is far more vital to the *Sherente*, where the solar and lunar gods, through intermediaries, reveal themselves only to members of their respective halves of the tribe.

Among the *Canella*, such of these notions as exist have been transferred to a seasonal scheme of dual division, distinct from the moieties that regulate marriage. This scheme bisects the universe into two contrasted series of phenomena, with the sun, red, east, etc. in one, and the moon, black, west, etc. in the other. The moieties of this type embrace both sexes, but hold significance essentially for the rainy season only. Further, affiliation with the Rainy Season moieties does not follow an automatic, uniform principle of descent, but differs according to sex, and may differ individually because of chance and a principle of reciprocity. Males obtain a set of personal names and through them membership in Rainy Season moiety A from a matrilineal kinsman; females a set and membership from a patrilineal kinswoman. But if the name donor should die before formally passing on his names, the new name-giver might own a different set, hence possibly one of the complementary seasonal moiety, which would inevitably shift the child's affiliation accordingly. Finally, reciprocity enters because a woman permits her son to receive her brother's names only if he has a daughter to whom she could transfer her names; otherwise she casts about for a more remote matrilineal kinsman who does have a daughter. The seasonal moieties are thus characterized by: (*a*) Their nonexogamous character; (*b*) linkage with a dichotomy of the universe; (*c*) different principles of affiliation for males and females; (*d*) the possibility of a shift in membership; and (*e*) a principle of reciprocity determining names and membership.

The *Canella* have two additional schemes of dichotomy, both restricted to males. First, by another set of personal names they determine the membership of six male groups with distinctive stations in the plaza; and three of these, the Giant Snakes, Bats, and Carrion Vultures, are opposed as an Eastern half to the Western half comprising the Armadillos, Dwarf Parrots, and Aliens. Because of their localization, these units are conveniently labeled "Plaza groups and moieties." Finally, the four athletically active age classes are similarly grouped into an Eastern and a Western moiety.

Since two of the four dual schemes exclude women and the seasonal moieties do not consistently follow the matrilineal rule of descent, they obviously are not coterminous with the exogamous moiety system. The latter is probably basic, but as the *Canella* developed a passion for dual divisions they shifted all but the marriage-regulating functions to the new types of moiety.

These *Ge* connect athletic games with a dual grouping. The *Apinayé* recruit the opposing teams for log races from the males of complementary moities. Among the *Canella* the Eastern age classes and plaza groups similarly compete with the Western during the dry season, the Rainy Season moieties being pitted against each other during the races of the period indicated. The *Sherente* assign boys about 8 years old for life to one of two tribal teams not coterminous with the moieties; married women belong to their husbands' team; girls are appointed to either at will.

The moiety system often effects ceremonial, many functions being duplicated, so as to have each half of the tribe represented. This applies, e. g., to 17 distinct *Sherente* offices.

The *Sherente* clans have each its recognized relative place in the peripheral arc of the village. They are not important either economically or religiously; even blood feuds were waged rather by the moieties, and reciprocal duties of "narkwá" clans as to burial of corpses are tied up with the dual organization. The most essential task of clans is to prepare festive decoration, a function reflected in almost all their names. One of the adopted clans does, however, exercise the exclusive right of playing with rubber balls.

Marriage.—While the *Canella* and *Sherente* moieties are exogamous, the *Apinayé* regulated marriage by four kiyé, membership in which was inherited by sons from fathers, and by daughters from mothers. The names of these units are largely inexplicable and, so far as translatable, not totemic. Members of one kiyé may marry only into one of the other three groups. That is, an A man marries a B woman; a B man a C woman; a C man a D woman; a D man an A woman. "A" is accordingly composed of sons of A men and B women, but of daughters of A women and D men (Nimuendajú, 1939, p. 30).

The *Timbira* and *Northern Cayapó* are absolutely monogamous, the *Sherente* predominantly so, but permit sororal polygyny, though it is rare. Pohl found the *Southern Cayapó* polygynists. The levirate is institutional only among the *Sherente*, the sororate permitted by the *Apinayé*. Cousin marriage is unknown to the *Timbira;* the *Sherente* allow it only with the father's sister's daughter, but men favor marriage with maternal blood kin beyond the prohibited second degree. *Timbira* residence is matrilocal, and this also holds essentially for the *Pau d'Arco*. The *Sherente* groom at first lives with his bride's family, but after possibly a year the couple permanently settle with or beside the husband's parents. A *Canella* is always welcome in his matrilineal home, spends much of his time in it, and always goes back there if seriously ill or when divorced.

The matrilineal, matrilocal *Timbira* present suggestive contrasts to the patrilineal, patrilocal *Sherente*. Among the former, the women own houses and fields; among the latter, both belong to the men. Among all three tribes the maternal uncle plays an important part, probably most of all among the *Canella*, where he may forbid a niece's marriage. However, neither here nor among the *Apinayé* is there any coercion into wedlock, while the *Sherente* elders arrange the marriages of both young men and women. There is no *Timbira* matriarchate nor any systematic bullying of the women by the *Sherente* men, but the status of women seems definitely higher among the *Timbira*. The division of labor, however, was uniformly fair; and *Sherente* wives share privileges that go with their husbands' honorific offices.

The *Sherente* stressed premarital chastity, expelling from the bachelors' hut any youth who succumbed to temptation, and girls were carefully watched by mothers and aunts. A deflowered maiden at once lost the ornamental necklace that served as the badge of virginity. The *Canella*, *Apinayé*, *Northern Cayapó*, and *Sherente* all distinguished a class of "wantons," i. e., young women who engage in sex relations without formal marriage and henceforth freely consort with men. Thus, a hunting party of *Sherente* would always take along two girls of this status as cooks and mistresses, one from each moiety to satisfy the men's wants without infringement of exogamy. The wantons are not outcasts, though less esteemed than chaste women.

No *Timbira* youth was formerly allowed to marry before completing the cycle in initiation ceremonies, the *Apinayé* youths, with few exceptions, getting married on the same day, though this was not compulsory. Among the *Sherente* a lad might marry only after entrance into the sixth and highest grade of the bachelors' hut.

Kinship usages.—The avunculate is conspicuous, even among the patrilineal *Sherente*, where the mother's brother completely eclipses the paternal uncle. On the other hand, a close bond unites a *Canella* girl with her father's sister, who sometimes raises her niece. Among the *Apinayé* it is the maternal grandmother who specially concerns herself with young children. The intimate relationship assumed between parents and children appears in the couvade. (See Life Cycle.) The *Apinayé* restrict social relations with siblings of opposite sex after about the tenth year; they should not talk or walk alone together, nor should a male pass below a sister or niece seated on a tree or roof. As to affinities, the *Timbira* allow considerable public freedom between a man and his wife's sister—not his brother's wife; the *Canella* display this feature more prominently than the *Apinayé*, but even they never carry pleasantries to the point of obscenity. During the initial period of wedlock all three tribes prescribe avoidance between parents-in-law and children-in-law, especially those of opposite sex.

Names.—Personal names are of great importance and interwoven with the social structure so as to be suitably considered here. Notwithstanding the matrilineal descent common to both *Timbira* peoples, the transfer of names differs. It is the *Apinayé* moieties that own name sets, and, consistently therewith, senior matrilineal kinsfolk of either sex convey their own names to their nephews and nieces by a formal ceremony. The *Canella* plan, however, rests on reciprocity (p. 490); and the same scheme holds for the *Pau d'Arco*. Quite different again is the *Sherente* scheme, by which masculine names regularly skip a generation, being transferred from the boy's patrilineal kin of the second ascending generation, whereas girls get their names from the men's societies.

The very acquisition of the name involves ceremony, but particular names may lead to special consequences. The *Apinayé* and *Pau d'Arco* distinguish between "little" and "great" names, the bearer of the latter having to undergo distinctive ceremonials or enjoying some prerogative. Often the performance in question requires the simultaneous functioning of both moieties, in which case names are conveyed in pairs. As stated, distinct types of *Canella* names imply membership in the seasonal moieties and the plaza groups. Names of the latter category further involve affiliation with two festive organizations that appear in major festivals.

Age classes.—The *Apinayé* scheme of age groups is the simplest. Ignoring females, it divides males into boys prior to initiation, a wholly unorganized group; the warriors, about 15 to 25 years old, i. e., youths from the beginning of the second stage of initiation until the close of the next junior group's initiation; the mature men, formed automatically by the completed initiation of the next younger class; and the elders, who are no longer able to be active racers. Of these, only the warriors constitute a sharply defined unit.

The *Pau d'Arco* and *Górotire Cayapó* have series of age classes for both sexes, the youths' grade being most conspicuous. The *Górotire* recognize boys from about 5 years on, youths from 15 to 25, men between 25 to 40, and elders; the *Pau d'Arco* interpolate two transitional grades between boys and youths, and distinguish men according to their status as husbands of women pregnant for the first time, of those nursing their first child, as heads of families, and as elders.

Boys sleep in the men's house directly after initiation; and as soon as one of the *Pau d'Arco* lads has had sex relations, his entire class receives new penis sheaths and are thence called by the third class name. The corresponding promotion of their immediate juniors makes them advance to the youths' status.

The feminine grades of this subtribe include, respectively: Children; girls before puberty; young women before their first delivery; those between their first and second child; mothers of several children; and those who no longer menstruate.

This occurrence of feminine age classes among the *Northern Cayapó* is without *Timbira* or *Sherente* parallel.

The *Sherente* segregate youths in a central bachelors' hut. There they remain from the time they attain shipsá status—symbolized by a thicker girdle (pl. 101, *center*), a necklace with falcon feather, and a sheath (pl. 101, *top*) for the occipital hair—until marriage. The emblems, however, are not obtained through formal initiation except in one of the four associations (see p. 496) to which boys are assigned when about 8 years old; members of the others get the insignia whenever their paternal uncles consider them old enough. Prior to this stage the boys, possibly from 5 or 6 years of age, are organized and tutored by older functionaries for later associational activities.

With the bachelors' hut the four societies have separate segments, and within each segment members of the Sun moiety occupy the north side, those of the Moon moiety the south. Furthermore, the boys are divided into six grades, the three lower having green instead of white hair sheaths, while in both trios status is further defined by the length of the wings projecting from the sheath.

Most elaborate are the *Canella* arrangements. There is no bachelors' hut, though except in stormy weather the young men and boys sleep in the corresponding central part of the village. Here, too, the little boys are organized to mimic their seniors. The age classes proper are tied up with initiation, which involves two stages, each traversed twice in identical form. Since 2 or 3 years intervene between performances, the total span of initiation is about a decade. That is, the novice at 5 to 10 years of age goes through ceremony 1, a few years later through ceremony 2, both involving a several months' seclusion; and after similar intervals he again goes through 1 and 2.

In the plaza the four sportively active age classes have each its definite place. The little boys organized as mere mimics acquire official status by securing one of these sites—invariably a northern one and the one not assumed by their immediate seniors. This admission causes a shift all along the line. The class hitherto on the site in question passes on to the one directly south, ousting its occupants, the oldest of the four groups, who thus retire from the "sports league" to become elders in an inner circle of the plaza, but preserving their class identity in the council.

The four active classes are primarily concerned with racing and ceremonial, but also engage in economic tasks at the council's behest and anciently formed units for war raids and hunting trips. They are linked into an East and a West pair, which are the opposing teams in log races of the ceremonial season. For each pair the council chooses a virginal girl associate, whose maternal home provides a meeting place for the complementary couple. The girls chosen have mothers owning diametrically opposite houses. The two leaders of each class are carefully selected by the council and represent the Eastern and Western plaza groups, respectively. These leaders actually control the membership, which assembles only at their command and is officially dealt with through them only.

Formalized friendship.—Two contrasted types of personal relationship among the *Canella* roughly suggest the joking and the respect relationships of North America.

The former is cemented when an age class passes through its final initiatory phase: The two persons in question jointly dive in a prescribed manner, swimming together below the surface as long as they can. They thus become each other's kwu'nó, a bond possible also between the boys and their girl associates. This relationship, theoretically lifelong, is in practice important only before middle age. Two kwu'nó are boon companions, constantly aid each other, formerly joined in war raids, and may reprove or mock each other with impunity. With their wives' consent, they may temporarily exchange spouses.

The respect relationship (male: hapín; females: pintshwéi) may be established in similar circumstances by a slightly different method of diving. However, there are two other ways, which create a more serious bond. A person becomes an unborn child's hapín (pintshwéi) by tying some ornament round the pregnant mother's neck; or automatically, by acquiring names that involve this tie with several persons bearing certain other names, among whom, however, one individual stands out as the friend par excellence.

The obligations thus created involve mutual respect and solidarity. Disputes are barred, as is erotic talk; in conversation the interlocutors must not directly look at each other; nor is either supposed to beg of the other. Ceremonial obligations are numerous: a man's corpse is painted by his pintshwéi, a woman's by her hapín; a "friend" of either sex glues falcon down on the partner's body or daubs him with paint as the occasion arises, and so forth.

The *Apinayé* appoint a male and a female "kramged" for every child about 5 years old, the man being of the child's father's kiyê, the woman of his mother's. This is a respect relationship involving mutual obligations as to burial. An equivalent custom is noted for the *Pau d'Arco.*

Associations.—As explained, the Plaza group names of the *Canella* likewise involve membership in festive organizations. A man may belong to 2 of the 6 societies, but some of these are mutually exclusive. He may be a Duck and an Agouti; or a Falcon and a Jaguar; or a Jaguar and a Mummer. Clowns become such only on the basis of a talent for buffoonery. Each of the organizations has about 30 members; most of them—like the age classes—have 2 girl auxiliaries. Fourteen comparable societies, with membership dependent on the matrilineally transferred personal names, exist among the *Pau d'Arco.* These groups have wholly or preponderantly ceremonial, not economic or religious, functions.

On the other hand, the four men's associations of the *Sherente* are the most vital of their social units. Every male when about 8 years old is assigned to one of them—generally not his father's—and normally remains there for life. The council tries to maintain approximate numerical equality among the societies. Outstanding are the economic functions. Hunting was essentially a collective enterprise by each society, which divides the game bag among the members. The clearings were made not individually, but by the association for each member. Stands of burití and babassú belong to particular associations, which resented trespass by the rest. For sport, each association was bisected according to the two tribal teams to which the members had been arbitrarily allotted in boyhood. In the log races it was exceptional for one society to run against the other;

competition was rather between the fragments of the two tribal teams represented in the organization. In warfare, each association formed a tactical unit, a particular one being the vanguard, another one bringing up the rear. Further, the societies take turns in performing a secular masquerade; give names to the girls of the tribe; and organize the feast in honor of eminent deceased members.

Each society has two leaders, one from each moiety, who function for the greater part of their lifetime; also two servants who attend to all official requirements and may nickname and ridicule the members.

According to the origin myth, Sun, Moon, and a supernatural deer established the associations as an age-graded series, whereas no differences in age are actually found. However, the traditionally younger societies are addressed as "sons" by their traditional seniors. Moreover, an initiation ceremony is held by only one of the four groups, the youngest according to myth. This becomes intelligible as a survival of a pristine age scheme conforming to tradition, for evidently only the youngest of a quartette of societies would require a tribal initiation. Further, the number of the societies and their localization in the plaza correspond to the four age classes of the *Canella*, suggesting a remote historical connection.

The *Sherente* have also a single society for women, who regularly bring their infants to the place of assembly, so that there is no formal admission. The organization follows the masculine pattern with its dual leaders and attendants. It has no economic or religious significance, but does celebrate a festival in the bestowal of a particular name on two little boys. During the performance, the men make a sham attempt to intimidate the women by luridly dramatizing the killing of a woman.

Etiquette.—Customary law definitely fixes the behavior for all normal social occasions. The *Canella* always approach councilors reverentially, and both visiting strangers and tribesmen released from seclusion must formally present themselves to these dignitaries. Kinship usages have been discussed under the appropriate head, as has the conduct imposed by the respect and joking relationships.

Special mention must be made, however, of the weeping salutation common to the *Sherente*, *Timbira*, and *Northern Cayapó* (Krause, 1911, p. 402; Nimuendajú, 1939; 1942, p. 112 f.). Among the *Apinayé* a homecoming tribesman who has been away for some months seats himself on a platform bed in his maternal home, all his older kinswomen sit beside him, put one hand on his shoulder or lean against him, and burst into vehement tears. The entire ceremony lasts a little over half an hour. The motives are grief over the Indians who have died during the traveler's absence and commiseration of him for having had to be away from home. In this tribe men, girls, and young women do not join in this strange welcome nor do the traveler's wife and children.

WARFARE

Except for the *Apinayé*, the *Timbira*, and *Central Ge* were warlike, fighting even against closely related groups. The principal weapons were bows, arrows, round and flat clubs (pl. 98, *top*, *right*), and lances. Of these, the bow and arrow have been described under Hunting. The distinctive weapon of the *Sherente* was a 4-foot (1.2-m.) club with thickened and somewhat curved butt; the *Canella* similarly relied largely on a two-edged sword club equally fit for thrusting and striking. *Sherente* lances were over 6 feet 7 inches (2 m.) long, of Brazil wood, and knobbed at the butt; the head, about 9 inches (22 cm.) in length, consisted of a sharpened rhea femur. Characteristic only of the *Ge* and a few tribes of dubious affinity is the short-handled stone anchor ax for crushing a foeman's skull (pl. 99, *bottom*). It seems to have been specially developed by the *Apinayé* where miniature ceremonial forms also occur. This ax was carried on the shoulder by a sling. (Nimuendajú, 1939, p. 126; Rydén, 1937.) Incendiary arrows were known in the area.

The *Timbira* made only surprise attacks against Neo-Brazilians, but were not afraid of pitched battles when able to fight on equal terms. The warriors included the fully initiated young men for about a 10-year period, from the close of their own initiation until that of the next group. Among the *Apinayé* they united as a body only to repel an assault on the village, otherwise there were expeditions by minor parties. The *Canella* raids were sometimes organized by individuals, especially by a maternal uncle and his nephew to revenge a death, but more commonly by the council, which would appoint an experienced captain to advise and command the age-class leaders immediately in control of their companies. These people took neither prisoners nor trophies, but killed all enemies they could; this applies also to the *Sherente* and the *Pau d'Arco*, except that they occasionally made children captives, the latter also women. Cannibalism has been imputed to these tribes, but contrary to all trustworthy evidence. The club used by the killer was left by the enemy's corpse (*Pau d'Arco*).

The slayer of an enemy had to go into retreat—for 10 days among the *Apinayé*, for a fortnight among the *Pau d'Arco*, for a month among the *Canella* and *Sherente*. The *Canella* killer neither washed nor laughed, was restricted in diet, and sat on a special bed. At the close of the period his mother or sister prepared manioc paste while his uncle went hunting to provide the meat for huge pies. Then the warrior took a bath, had falcon down glued on him, and loudly announced his deed in the plaza. On the following day, he formally presented himself to the councilors, who then claimed the pies. The *Apinayé* imposed silence on the killer, had him slash his chest, and made him put on special decoration at the close of his fast. A *Sherente* brave gashed his chest for each of his victims, rubbing in the ashes from the root of an herb reputed to safeguard against arrowshots. He was allowed to wash only his face and hands and had to remain continent during his retreat.

LIFE CYCLE

Childbirth.—As soon as a *Canella* woman is aware of pregnancy, restrictions, such as dietary taboos, set in for both parents. For delivery, their platform bed is partitioned off. The husband may stay there, but without looking at his wife, who is assisted by an elderly kinswoman. Usually he walks around the hut to expedite delivery, after which both parents remain in their cell until the navel string drops, a less rigorous seclusion for over a month involving typical features of ceremonial retreat—the use of a scratching-stick; abstention from paint, decoration, and hair-cutting; and the exclusion of flesh diet. The father must not work hard or otherwise exert himself. All these regulations envisage the infant's safety, hence extend to any men with whom the mother has had recent extramarital relations, so that as many as four men may simultaneously undergo the couvade in copaternal solicitude.

The dietary taboos, partitioning of parents, and prohibition as to paternal labor are shared by the *Apinayé* and the *Sherente*, the scratcher by the *Apinayé*. The former also take cognizance of a wanton's lovers, but merely have them drink a bitter decoction.

Marriage.—See Social Organization, pages 492–493.

Puberty.—The *Sherente*, as noted, have no initiation except in one association. The *Apinayé* and *Canella* initiation is a prerequisite to marriage, but the *Canella* performances begin long before puberty and both ceremonials are best considered with other festivals.

The *Timbira* and *Pau d'Arco* oddly believe that menstruation is impossible for a virgin, but among the *Apinayé* most girls actually married before puberty. In these tribes the first menses involve dietary taboos for husband and wife, the latter being further prohibited from scratching herself except with a special rod and from stepping on the bare floor. At the close of the period the girl's father and brother go hunting and provide meat for an old woman, who, after examining the girl, prognosticates as to the time of her first parturition. The couple go bathing, dring of an infusion, and throw the bowl into a brook to insure fine long hair for their first offspring. Subsequently, both spouses are painted, and the girl is smeared with a mixture to promote longevity. In subsequent periods women abstain from decoration, dancing, scratching with fingernails, and sex relations.

Apart from the initial participation of the husband, the *Canella* have an identical procedure for the first and later periods. The woman may bathe, but must not decorate herself or dance, or have sex relations. She stays indoors, never looks at the farms lest she injure the crops, and drinks from a special bottle, though she may cook for others. A scratching stick is prescribed.

The *Sherente* do not celebrate the first period, but the adolescent must not eat certain fish or wet the crown of her head. All menstruating women are impure, contact with them spoiling a man's hunting luck. They must neither cook for others nor plant nor scratch themselves except with a forked little stick.

Death observances.—A *Canella*, when seriously sick, always tries to get removed to his maternal home so as to die there. For an ordinary dying person only the next of kin gather round, a brief lament by a kinswoman announcing the demise, whereupon both paternal and maternal relatives assemble. The general lament only begins about an hour after death with the preparation of the corpse, by "friends" of the respect relationship, who cut the hair, pluck out the eyebrows, and paint the body with urucú, unless the deceased was a hamrén, for whom falcon down would be glued on. Related women wail, belabor themselves, and may attempt suicide, sometimes by taking a header against the hard ground. In the plaza the chief calls for a volunteer gravedigger. The grave is about 6 feet (2 m.) deep and was formerly round, the corpse being in sitting posture and facing east; but today the shape is rectangular and the body is extended supine. When secondary burial was still in vogue, the interment was behind the maternal home, except that a hamrém was buried in front of it. The mats on which the corpse lies are folded over it, tied firmly, and the bundle carried to its grave, now 1 to 1¼ miles (1.5 to 2 km.) from the village. The opening is covered with wooden cross pieces, topped with mats, and finally with earth. The next of kin, as among the *Apinayé*, never accompany the corpse to its grave. Except for a few feminine possessions in the case of women, there is no evidence of funeral deposits, which seem to be slightly more marked in the two other tribes.

For a distinguished man the *Southern Cayapó* performed a curious rite, the chief striking a kneeling man's forehead so that the blood flowed, which was then smeared on the corpse (Pohl, 1832–37).

Secondary burial was shared by *Timbira* and *Sherente*. The *Canella* kept it up at least for hamrén until about 1915, the *Apinayé* till 1925. The former scraped the bones clean, both reddened them with urucú, put them into a bag, and buried them in a shallow pit.

In several tribes the persons in charge of the burial are of special status: The *Canella* volunteers must be of the exogamous moiety complementary to the deceased; the *Apinayé* functionaries are his "kram" (Nimuendajú, 1939, pp. 31, 153); those of the *Sherente* are of the narkwá clan. In all three cases the earth should not come into direct contact with the corpse; the *Sherente* go so far as to shield it by a roof of poles and mats on forked posts. Mourners never cut their hair in any of these groups.

Distinctive of the *Sherente* is a feast of the dead in honor of distinguished people, a ceremony next in importance to their Great Fast.

ESTHETIC AND RECREATIONAL ACTIVITIES

Art.—The esthetic sense of these Indians is in part satisfied by their elaborate ceremonials, but other manifestations do occur. Though Krause saw no plastic products among the *Northern Cayapó*, the *Canella* mold wax into fairly accurate effigies of rheas, armadillos, tortoises, etc. Basketry, specifically twilling, yields the expectable patterns, zigzag and diamonds. (Krause, 1911, pls. 64, 67, 68; pp. 384, 389; Nimuendajú, 1939, p. 125.) Incised gourds figured by Krause show concentric circles and diamonds in nests or in series bisected by a narrow strip. Pokerwork appears in the zigzags on a ceremonial *Sherente* staff. Ornamental features may be noted in the crescent-shaped or winged tops of *Canella* club handles and especially in the delicately carved grips of initiates' scratching sticks. Openwork also presents some pleasing effects in the crosses of ear disks and the symmetrically disposed crescents, oblongs, triangles, and U-designs of ceremonial clubs.

Painting is of great importance. Not only is red urucú applied to the body and virtually to all articles of use, but special devices—two- to five-tined forks and multiform stamps—serve to impress designs for ceremonial embellishment among the *Canella.* Stars, hourglass designs, triangles, and series of dots are among the patterns found, which are illustrated by the distinctive decoration of the Plaza groups (fig. 62). The mats of mummers' outfits are painted with the fingertips to represent eyes by concentric circles or spurred wheels; and they also bear other ornament, such as monkey figures. The *Canella* further paint geometrical designs in red and black rosin on some of their coiled baskets. Interesting color contrasts also appear in one type of *Sherente* race log. That used by one team shows a red background set off by a vertical black stripe in the center and black zigzags symmetrically placed in upright position at the left and right margins, while the space between each zigzag and the center is relieved by a vertical line of white dots. In the other team's log, a

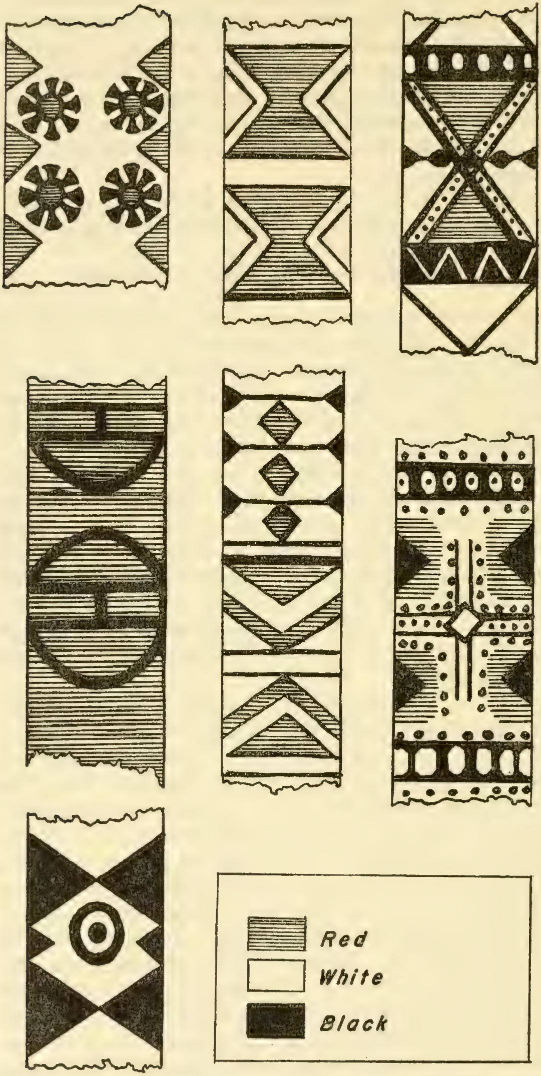

FIGURE 62.—*Canella* decorations on forehead bands and sashes. (Redrawn from original sketch by C. Nimuendajú.)

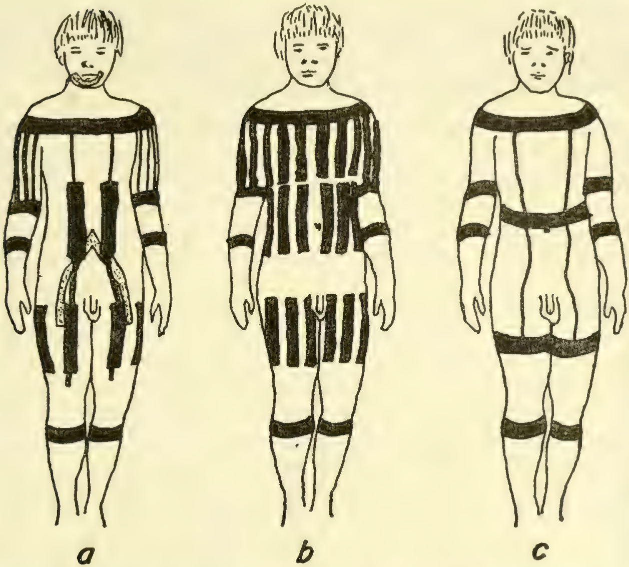

Figure 63.—*Sherente* body-paint decoration for the various shipsá age classes. *a*, The siteromkwá in the panisewarié class; *b*, the siteromkwá in the panisekrdú class; *c*, the htímhá in the sinãikrã class. After Nimuendajú, 1942, fig. 3.)

central row of white dots and series of small black isosceles triangles contrast with the red background (fig. 64).

Games.—Gambling is unknown. All other sports of the *Northwestern* and *Central Ge* are eclipsed by their constantly recurring relay races with heavy logs. These are not, as sometimes alleged, trials of a suitor's fitness for marriage, but purely sportive competitions engaged in for their own sake without thought of any reward except prestige. The competitors' ages vary from 15 to 55 years, thus including many men already married. As noted, the *Canella* have special race tracks of great extent. Typically, the logs are made of the section of a burití trung 3 feet (1 m.) or more in length and 16 to 20 inches (40 to 50 cm.) thick, the weight being possibly 200 pounds (100 kg.); at the ends a shallow depression provides a grip. But there are many variations; one *Sherente* type, e. g., has to be carried by two men at a time, and the *Canella* have a miniature symbolic form. the normal procedure is to start from the place of manufacture and to pass the log on to a fellow member of one's team, who in turn is relieved as he grows tired until the last runners reach the plaza. However, the

Canella also run around the boulevard, and *Timbira* men commonly race home from some joint enterprise carrying logs. Such occasional competitions create little stir, but the performances at major festivals rouse the populations to a pitch of excitement.

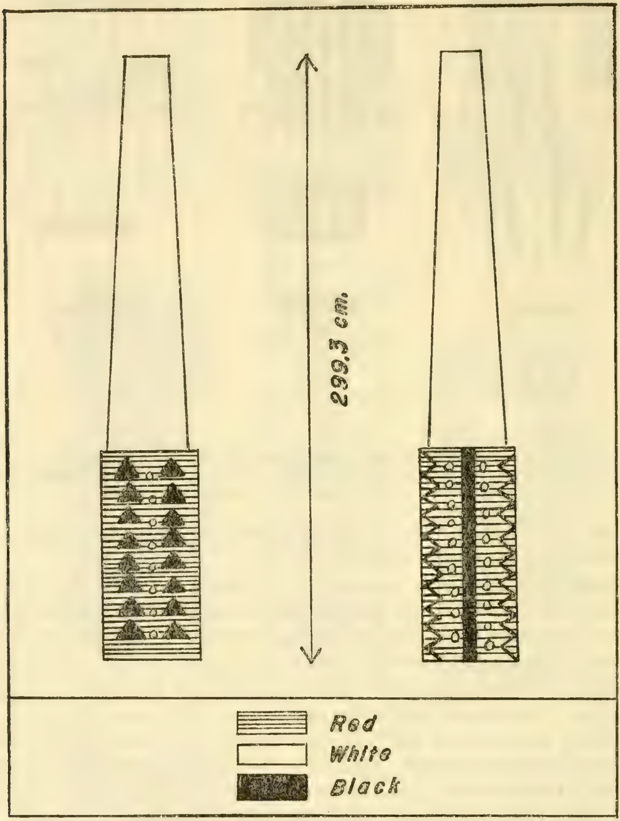

FIGURE 64.—*Sherente* racing logs. Aldea Porteira. (Redrawn from original sketch by C. Nimuendajú.)

The competitors are differently recruited in the several tribes. The *Sherente* arbitrarily assign every boy to either of two tribal teams for lifelong membership and on that basis organize the races almost entirely within any one association; the *Apinayé* pit men of opposite moieties against each other; the *Canella* compete by seasonal moieties during the rainy season, generally by age-class pairs during the ceremonial part of the year, but also in various other ways, certain societies being pitted against each other at particular festivals. In former times outsiders would occasionally challenge the *Ramcṓcamekra*, but such contests might end in fearful brawls. Sometimes even *Canella* girls and women race with logs of lighter make.

For the *Southern* and *Northern Cayapó* clear-cut evidence for a competitive sport of this type is lacking, but some equivalent procedure with a log either in dancing or in transportation by successive groups of men is indicated (Pohl, 1832–37; Kissenberth, 1911).

The *Canella* also have a simpler relay race with a wand instead of a log, as well as ordinary races, which are much rarer among the *Sherente* and *Apinayé*.

Wrestling occurs, but not as a prominent sport. Mock fights are indulged in by several groups, and a tug-of-war characterizes the *Pau d'Arco*. Unique in South America is the *Sherente* ring and pole game, in which one player with a 12-inch (30-cm.) stick catches a hoop about 12 inches (30 cm.) in diameter thrown by his opponent. Target practice is not reported, but the *Canella* shoot arrows for distance either along a smooth plot of ground or by making the missiles rebound from a specially erected obstruction, say, a little mound. Stilt walking is a boys' pastime among the *Canella*, but exclusively a men's sport among the *Apinayé*, whose stilts are nearly 10 feet (3 m.) high, the steps being about 5 feet 7 inches to 5 feet 11 inches (1.7 m. to 1.8 m.) above the ground; the performer mounts them after climbing a tree and rests on the roofs of the houses. Hunters returning to the village sometimes surprise their tribesmen by a grotesque procession of towering figures, to whom the women hastily bring offerings of cooked tubers impaled on poles.

A rubber-ball game is the property of one *Sherente* clan, whose members propel the ball to one another with the palms of their hands. Other tribesmen may play only with balls of maize husks. The nearest *Apinayé* counterpart is a kind of shuttlecock, the rubber balls being batted with paddles or a special battledore. Also, while the *Sherente* play at any time, the *Apinayé* game is restricted to the second phase of initiation, though played by mature men, not by the novices.

Aponayé and *Sherente* boys have tops and humming tops, buzzers, (fig. 65, *a*) bull-roarers, wax figures, and grass toys. Girls seem to lack true dolls, the *Apinayé* substituting elongated gourds, their *Canella* sisters contraptions of burití leafstalks.

Cat's cradle is not highly developed. A single figure is known from the *Sherente*. Among the *Canella* young girls and men have about 10 figures, but very few individuals can make them.

Musical instruments.—The lack of drums is noteworthy. There are jingles of *Lagenaria* tips as substitutes for tapir hoofs; of shells; and of fruit shells. The *Apinayé* have toré clarinets, nose flutes, stop-

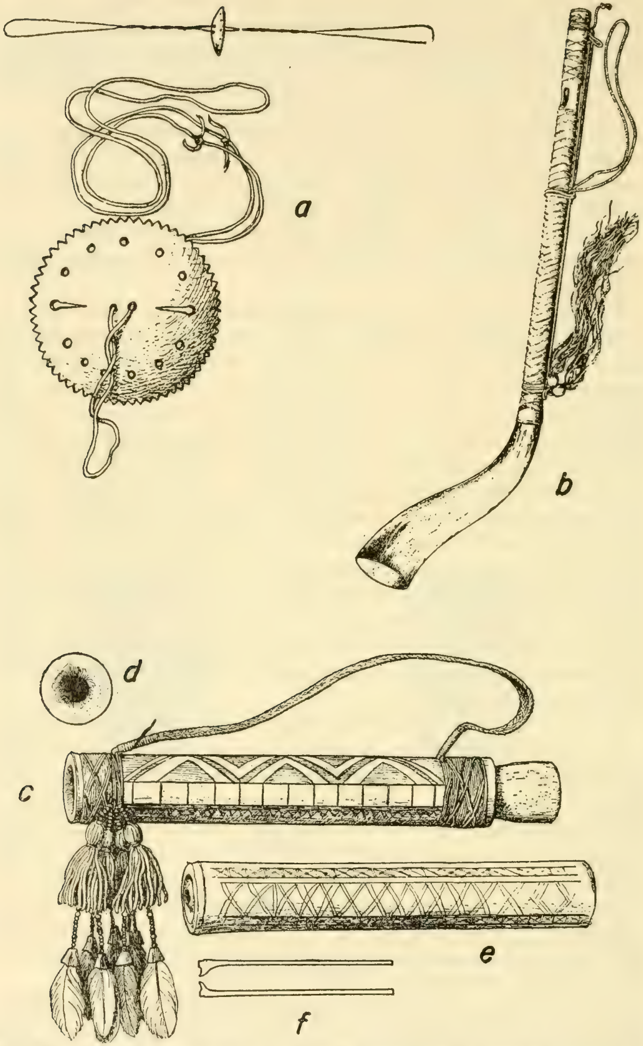

FIGURE 65.—*Ge* musical instruments. *a, Canella* buzzer disk; *b, Canella* trumpet with bell of cowhorn; *c, Canella* end-blown bamboo trumpet (length 17 in., or 42.5 cm.); *d,* blowhole in septum of *c; e,* end-blown trumpet; *f,* cross section of *e.* (After Izikowitz, 1935, figs. 94, 114, 95.)

less flutes with ducts (also *Cayapó*), and reed panpipes. They and the *Canella* share a unique form of resonator whistle composed of a reed attached to a nut or gourd.

Both *Timbira* divisions use simple end-blown bamboo trumpets (fig. 65, *c–f*), and complex side-blown trumpets are typical of the *Northern Ge*. The *Timbira* further use transverse, stopless flutes of gourd (fig. 66), wood, or horn, and small gourd whistles with from two to four stops. In modern times the *Northern Ge* have supplanted gourd with cowhorn resonators in their trumpets.

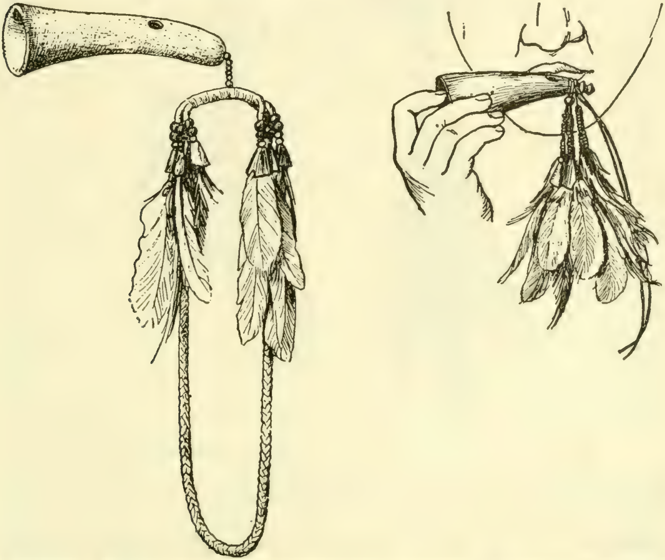

Figure 66.—*Timbira* type flute made of gourd from the *Apinayé*. The manner of playing the flute shown at right (¼ natural size). After Izikowitz, 1935, fig. 143.)

In this area the gourd rattle (fig. 67) is emphatically not associated with shamanistic cures. For example, it is the precentor's instrument at the daily *Canella* dances. It is made from the rind of *Crescentia cujete*, painted red, and mounted on a wooden handle, whose tip projects far beyond and enables the rattler to stick his instrument into the ground. In a hole in the grip is inserted a tasseled wrist cord.

One of the *Sherente* associations uses a peculiar double whistle made of two bamboo tubes tied together with twilled covering in two colors and with an arara feather pendant (pl. 99, *top*, *left*). With this instrument the leaders signal to their followers in battle.

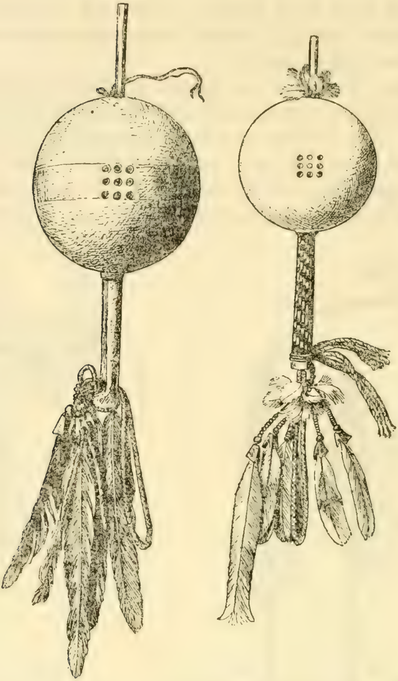

FIGURE 67.—*Apinayé* gourd rattles. (After Izikowitz, 1935, fig. 41.)

Another peculiar instrument of these people is a gourd trumpet blown to frighten the women.

Dances.—During the dry season the *Canella* have daily triple performances in the plaza, apart from any ceremonies. The first dance begins at about 3 or 4 a. m., terminating about 5:30 a. m.; the second, a little before sunset, is briefer and has a smaller attendance; the third begins at 7 p. m., takes at least 2 hours, often much longer, and always lures the largest audience. The participants include the older uninitiated boys and the two junior age classes, also girls from about 7 years up and young women at least until their first pregnancy. A precentor wearing a forehead band, neck band, and sash wields a rattle and leads in the singing, assisted by a precentress, who must take up the tune during any intermissions made by her colleague, since the chant must under no condition stop. This female dignitary requires a loud voice, a good memory for songs, and a gay disposition. She takes her position in the center of the women dancers' line, and acts as their leader Only the women and the precentor chant; the male dancers merely join in a periodic choral shout. The women and girls form one horizontal row, never leaving their stations but bending their knees in rhythm and bringing their bent arms back and forth so that their two hands almost touch during the forward movement. The precentor dances close to this line, sings and shakes his rattle at particular girls in turn, stamps his feet, stoops, leaps up with outstretched legs, making superhuman efforts to inspire the performer to whom he addresses himself. When there are 50 or more women in line, a second precentor is obliged to aid. The young men, generally armed with some weapon or staff, start their dancing only at the second or third song. One or two blow a trumpet; all stretch their legs apart, rock their knees, and in a body dance toward the girls so long as the precentor dances before them. But when he turns from them to make a semicircle, the youths also turn away, leaping back some 100 feet (30 m.). At the morning dances they utter a prolonged choral shout at the beginning of every stanza.

At least during a major festival, the *Górotire* have been observed in a similar triple performance.

In general outline the procedure is probably common to all the *Timbira*. However, the *Canella* often supplement the routine with some extras, such as a knee dance executed by the precentor and each girl in turn. Some dances have a partially magical aim, viz, to promote the growth of the crops or the effectiveness of the hunting.

Stimulants.—In contrast to the Amazon-Orinoco tribes, the *Ge* lacked intoxicants.

Tobacco, though probably known before contact with Whites, is not grown even today and plays a negligible part in ritual. However, some tribes are passionate smokers, using for the purpose funnels of spirally rolled palm leaflets.

SUPERNATURALISM

Notwithstanding significant resemblances, there is very wide divergence as to supernaturalism. Solar-lunar beliefs, animism, and magic are common to our three tribes, but with radically different emphasis. Notably, the *Canella* are so absorbed in ceremonial for its own sake and in the organization of log races that religion in its subjective aspects, including shamanism, recedes into the background.

Major deities.—The Sun and Moon myth is essentially similar throughout the area. Both characters are male, unrelated companions, with Sun definitely superior and at times maliciously teasing his dull-witted comrade. They create mankind by jumping into a creek

(*Canella*) or by throwing into a creek gourds which turn into human beings (*Apinayé*); the *Sherente* have no anthropogenic tradition, though they call Sun "Our Creator." The *Apinayé* further derive their moiety scheme from Sun.

The *Canella* never seek a personal revelation from their celestial gods, but publicly invoke them for rain, for the protection of game animals, the promotion of crops, and the prospering of wild fruits. However, these deities do not figure at all in certain ceremonies on behalf of maize and sweet potatoes. Very infrequently there are private prayers of unfixed text to Sun and Moon, mainly on behalf of a child's health. Eclipses arouse great concern, but only lunar ones evoke a definite procedure; viz, the shaking of rattles, the exposure of two little girls on a mat, and the discharge of burning arrows toward the Moon.

Like the *Eastern Timbira*, the *Apinayé* supplicate Sun on behalf of their crops and also to cure illness. At the beginning of the harvest, a 4-day ceremony is held, in which dancers put on Sun's distinctive red paint. In contrast to the *Canella*, the *Apinayé* may get direct revelations from the Sun in dreams or in visions when out hunting by themselves. The Moon also receives prayers to prosper the crops. During a lunar eclipse, an Indian lifts a girl toward the Moon, offers her for his wife, and begs him not to die; special chants are sung and burning arrows are shot at him. This last procedure has also been reported from the *Northern Capayó*, who suppose that they thereby prevent the Moon from tumbling down and destroying mankind (Kissenberth, 1912, p. 55). The *Apinayé* likewise celebrate every new moon with dances and special songs supposedly derived from the Moon. Doctors have no special connection with the major deities.

Different again is the *Sherente* attitude. Sun and Moon are potent deities, but never appear to visionaries, who get instructions from astral gods either delegated by the two great deities or acting on their own responsibility. Such revelations cannot be induced by any ritual preparation. Sun's intermediaries are Venus, Jupiter, and some other stars; Moon's most important deputy is Mars, whose protégés wield bull-roarers during their probation. Visions of solar associates come to men of the Sun moiety, and vice versa. Sun is sometimes tempted to destroy the world because of man's wickedness, but sends his emissaries with instructions on how to ward off with songs and magical paraphernalia a solar eclipse and the "cold night" in its wake that would extinguish life.

The Great Fast, the major festival of the *Sherente*, is closely connected with the foregoing notions. Curiously enough, it is conceived as a measure against prolonged drought, for this danger virtually never threatens, suggesting a prior habitat nearer the São Francisco River, whence tradition derives these people. Only adult males, undergo the ceremony, being divided into two main groups with a handful of elders as a third. The main groups alternate in fasting and in providing for the needs of the assembly, and are finally relieved by the old men, who fast for 5 days. The fast limits the penitents to two daily rations of water and manioc cakes, so that at the end of the 3 weeks' period they have lost considerable weight. They sit with their faces turned east, never wash, and sing continuously from morning until well into the night, reducing sleep to a minimum. Toward the close of the period the fasters are all supposed to have a vision of wasps armed with arrows, whereupon they are specially painted and parade, returning to their festive site for further visions of wasps, whose arrows supposedly drop and are collected by the master of ceremonies. The following day superficial ablutions are in order and the celebrants are sent to their homes, but return to the festival ground, where they hold decorated staffs and once more catch arrows dropped by wasp visitants, which are stuck into bast rings put round a specially erected post. The penitents march to a wooded spot some distance from the village, camping so that members of narkwá clans are neighbors. Two days later there is a hunt, followed by the preparation of meat pies; these are divided among the fasters, who return to their homes.

When all three groups in turn have undergone their fast, a race is organized with special logs set up with a 30-foot (9 m.) pole between them, which everyone is eager to embrace. A member of the kuzé clan climbs to the top with a wad of bast and prays to Sun for fire. A spark falling from heaven ignites the bast, which is dropped so that fires from it may be kindled round about. Others now climb up and have visions of deceased relatives, who answer their questions, telling them how long they will live. Each climber takes some small object with him, and announces, "I [i. e., my soul] will turn into a feather [or leaf, etc.]." The article is then dropped and gathered in a gourd bowl by one of the officials of the festival.

A Venus, a Jupiter, and a Mars seer now approach, offering water to the people; the water of the two former is clear, that of the latter is roiled and refused as presumably likely to induce death. The last to ascend the pole is one of the masters of the ceremony, who stretches out his hand eastward, and receives Sun's message through a star in Orion. This he proclaims the next day to the assembled throng; the Sun, he reports, is pleased with the festival and will grant rain, but wants them to avoid Christian dress and to maintain their tonsure lest the tribe perish. Finally, the celebrants once more unite in the woods, by moieties, and the collector of the transformed souls, now in the gourd bowl, takes out each in turn, and replaces it via the crown of its owner's head. Then all disperse.

Animism.—The *Apinayé* have a common term for the soul, ghost, shadow, image, and bull-roarer. Men, animals, and plants all possess souls, but those not human soon dissolve into nothing after death. Soul-loss by kidnaping or straying is one recognized cause of disease. The spirits of deceased relatives gather round a dying person to hasten his death and accompany his soul, which, however, continues to dwell on earth. Souls of executed sorcerers cause nightmares, but as a rule, unless offended, the spirits are well disposed toward their survivors. They are usually invisible, but not incorporeal or immortal: they eat like men, use will-o'-the-wisps as campfires, and after a while die, being transformed into animals, stumps of trees, or termite hills. In general they have superior knowledge of magic and medicine, which they reveal to a few favored men, though most *Apinayé* are either unable to establish rapport or afraid to court it.

The *Sherente* share the ideas of soul-loss and of spirit relatives surrounding the dying in order to conduct his soul to their village, which here too is situated on the earth, not in an underworld or the sky. The path thither is beset with dangers, e. g., a monster attacks the soul, and a bridge is so feeble that an unwary traveler will tumble into the water.

The *Canella* seem to lack belief in the temporary departure of the soul from the body and do not interpret sickness in this way. But communion with the spirits is the most conspicuous part of their religion, the souls of the dead protecting their living kin so far as possible, and warning them in dreams or visions. The swarm of spirits around a dying kinsman, the flimsy bridge on the route to the hereafter, the will-o'-the-wisps as spiritual campfires, recur in *Canella* belief.

Possession seems to be unknown to all three tribes, except at one phase of the *Canella* initiation.

Shamanism and sorcery.—The *Canella* derive curative and magical lore from the souls of the dead, but most sick individuals first try out traditional remedies and in grave illness almost always directly appeal to their ancestors, hence the professional medicine man is comparatively unimportant. The patient who treats himself must, however, go into seclusion and observe its customary rules as to diet, silence, and the use of a scratching stick. The medicine man applies both profane remedies and special procedures, e. g., extraction by sucking out the pathogenic agent. He is paid only if successful and receives no fee for collective treatment against epidemics, in which he smokes tobacco from a funnel and switches the villagers, who suc-

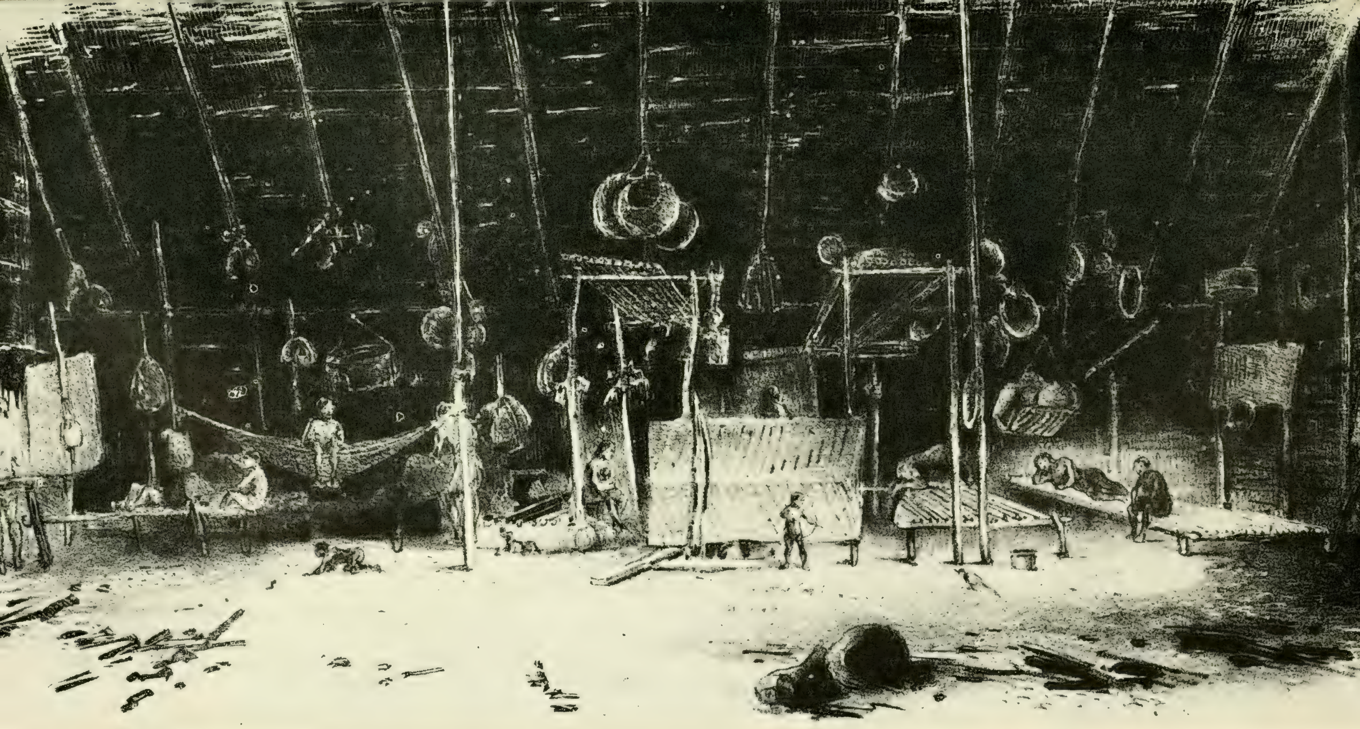

PLATE 97.—**Apinayé dwelling.** Interior of great house. (After Castelnau, 1852, pl. 15.)

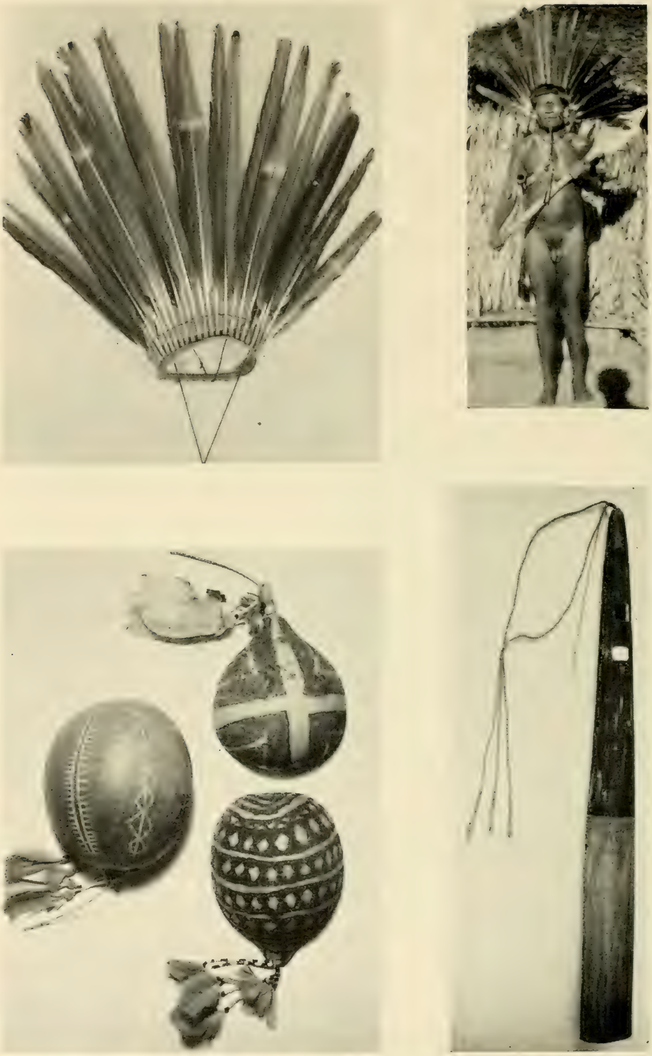

PLATE 98.—**Apinayé and Sherente artifacts.** *Top (left): Apinayé* man's ornament of arra tail feathers, worn on back of head. *Top (right): Apinayé* man with head ornament (like that at left), lip ornament with feathers attached, and paddle-shaped club with decorated handle. *Bottom (left): Apinayé* ornamented gourds. *Bottom (right): Sherente* wooden trumpet. (Courtesy Museu Paraense Emilio Goeldi, Belém.)

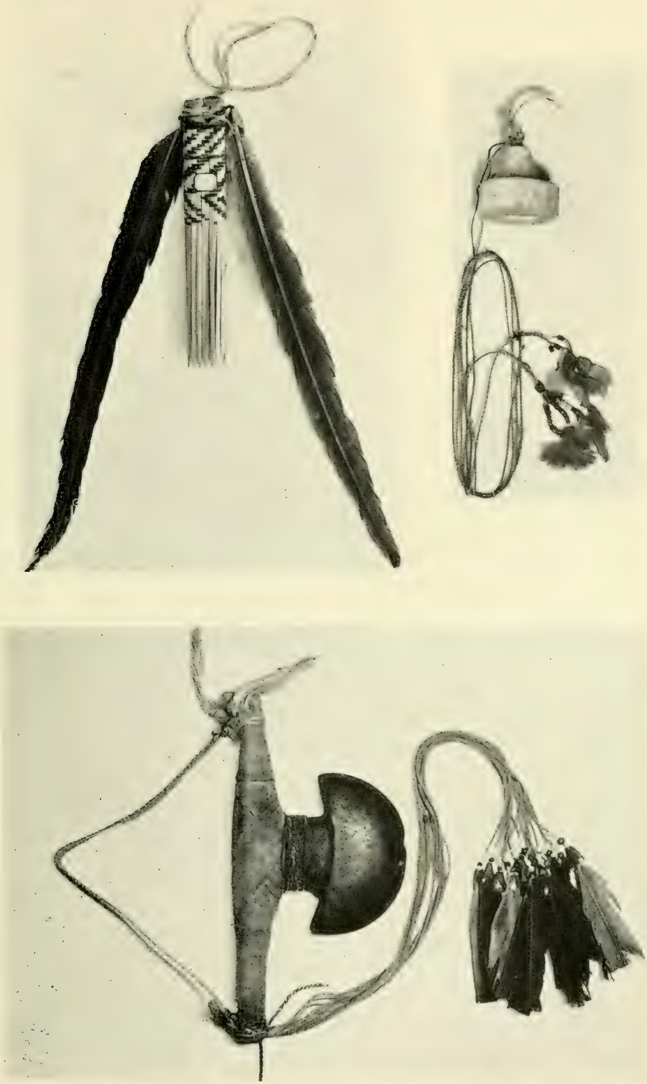

Plate 99.—Ge artifacts. *Top (left): Sherente* akemba warriors' double whistle. *Top (right): Apinayé* earplug. *Bottom: Apinayé* large anchor ax. (Courtesy Museu Paraense Emilio Goeldi, Belém.)

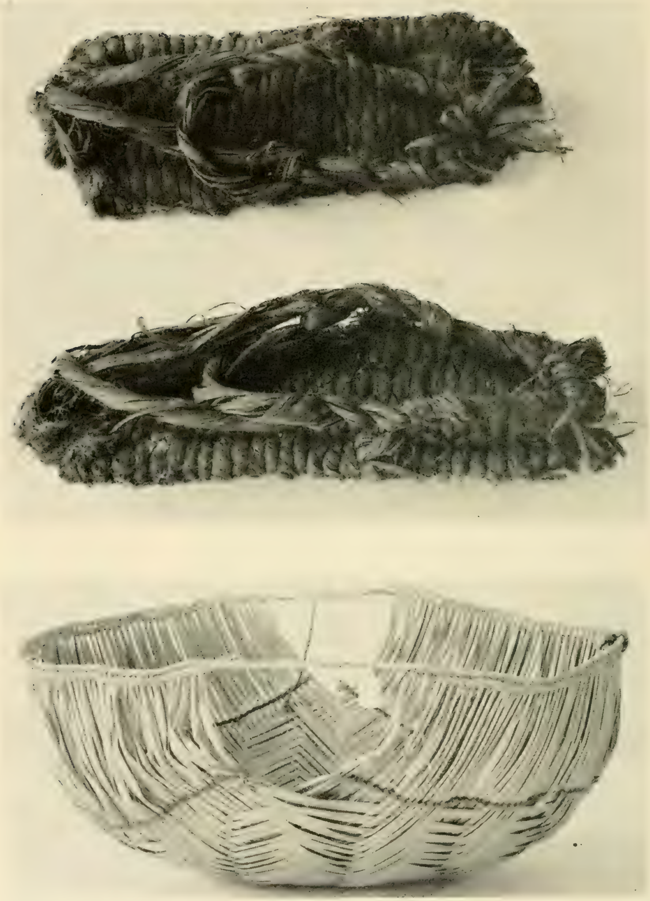

PLATE 100.—**Sherente artifacts.** *Top:* Bast sandals. *Bottom:* Twilled basketry bowl, 18 in. or 45 cm. diam. (After Nimuendajú, 1942, pl. 1, a.)

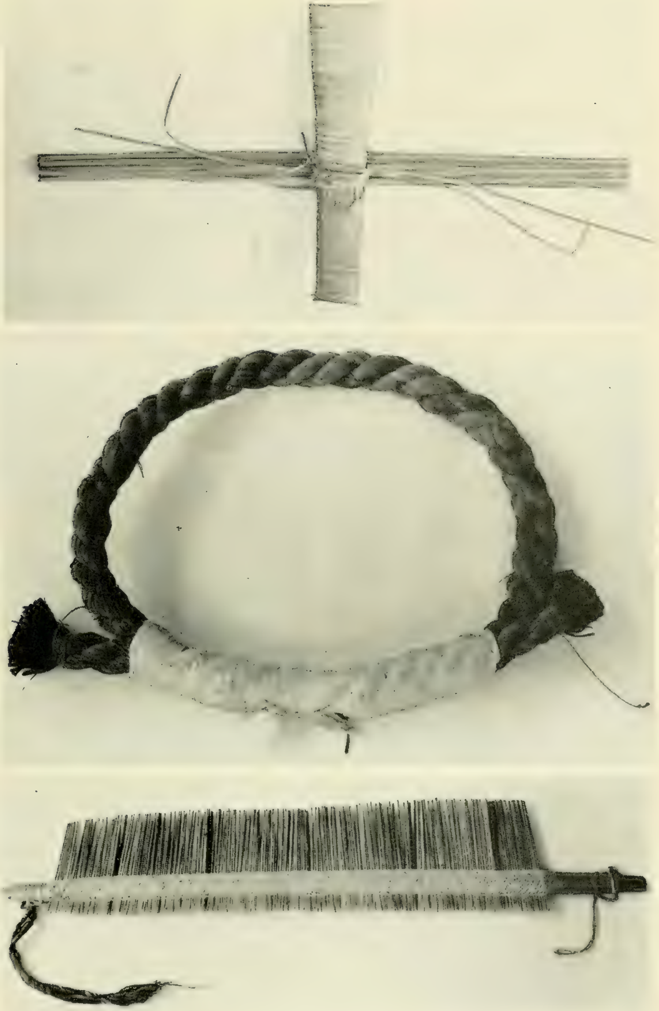

PLATE 101.—**Sherente artifacts.** *Top:* Hair sheath, siñaikrã age-grade. Insignia of bachelor's status. (After Nimuendajú, 1942, pl. 2, *a*.) *Center:* Shipsá girdle. (After Nimuendajú, 1942, pl. 2, *b*.) *Bottom:* Large *Sherente* comb. Used by men's association attendants at feast of the dead. (Courtesy Museu Paraense Emilio Goeldi, Belém.)

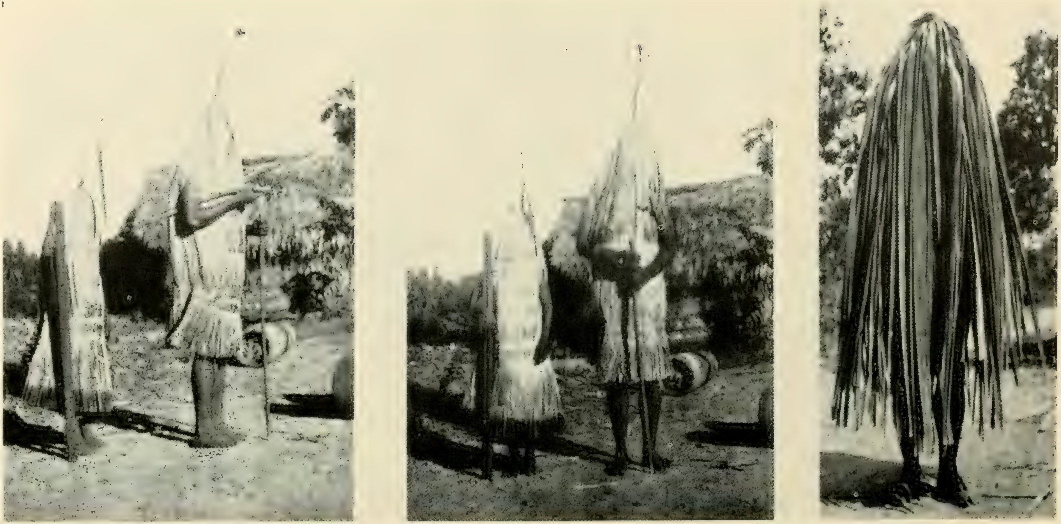

PLATE 102.—**Sherente masqueraders.** *Left and center:* Great Anteater masqueraders. *Right:* Nam costume at Waktidí, name festival. (After Nimuendajú, 1942, pl. 3.

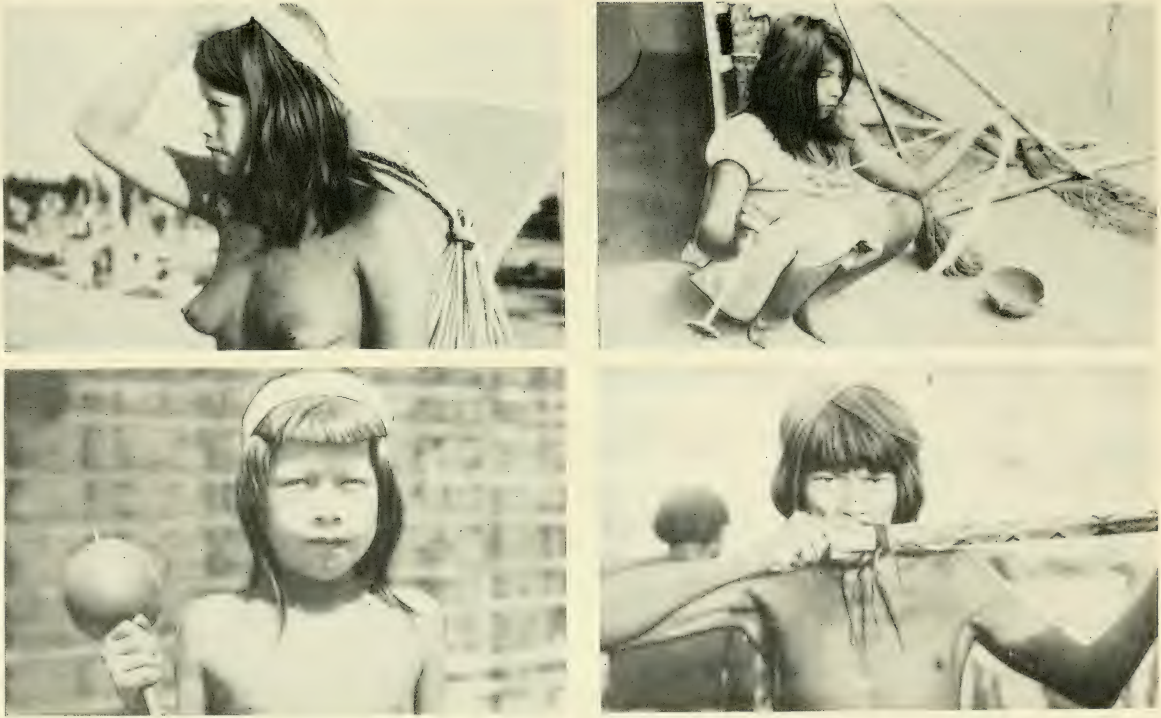

PLATE 103. **Ge Indians and artifacts.** *Top (left): Crão* woman carrying basket. Aldeia Cabeira-grossa. *Top (right): Sherente* woman spinning. Aldeia Velha dos Paneiros, Rio do Sono. *Bottom (left):* Young *Apinayé* holding a gourd rattle. Aldeia Bacaba, Boa-Vista-do-Tocantins. *Bottom (right): Canella* playing a trumpet. Boundary line Goiaz and Maranhão. (Courtesy Othon H. Leonardos.)

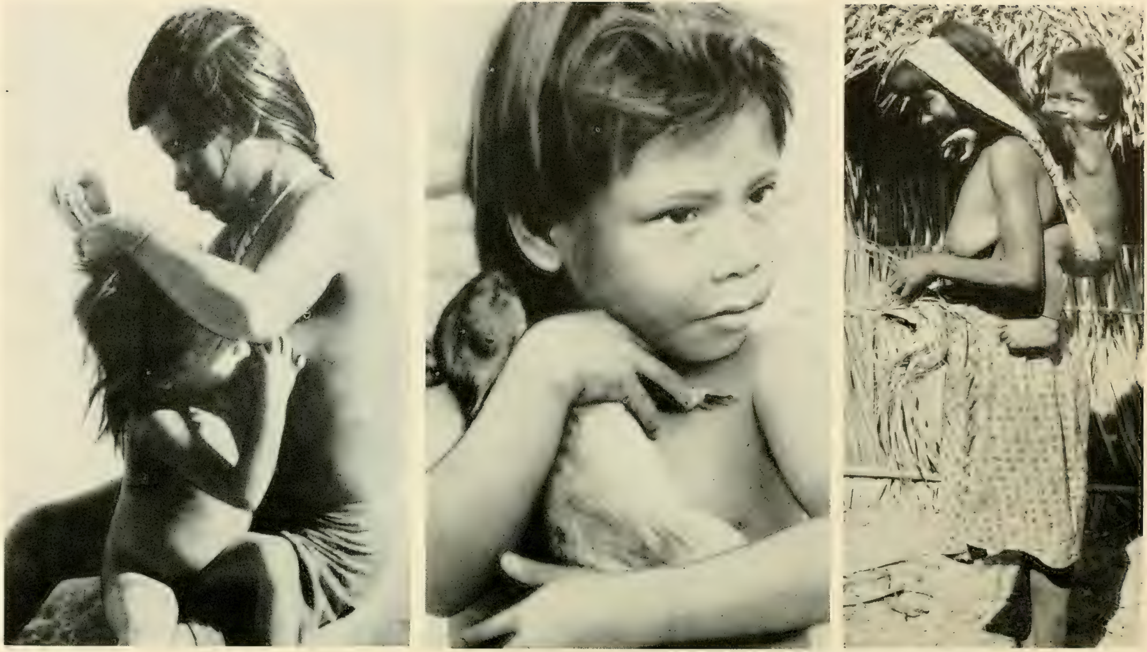

PLATE 101.—**Ge Indians.** *Left: Crão* mother suckling and delousing child. Cabecira-grossa, upper Manual Alves Grande River. (Courtesy Othon H. Leonardos.) *Center: Sherente* girl with agouti, a rodent. (Courtesy Othon H. Leonardos.) *Right: Sherente* boy in sling on mother's back. (After Nimuendajú, 1942, pl. 1, *b*.)

cessively crawl between his legs. Specialists communing with snakes are able to cure snake bites, but may also send poisonous snakes against personal enemies, and hence can bully tribesmen into submission to their wishes.

The *Northern Cayapó* and *Timbira* never regard the rattle as a shaman's badge.

Sorcerers are dreaded by all the tribes and put to death, at the chief's initiative among *Apinayé* and *Sherente.* The *Canella* believe that some spirits give to their protegé a rosinlike disease stuff, which he furtively blows at his victim or inters by his door, causing an obscure sickness and death.

Since most *Apinayé* avoid direct contact with the souls of the dead, their shamans enjoy greater significance. Some have the power to visit the shades instead of waiting for a revelation. Such a one smokes tobacco until he collapses in a trance, his soul going off for instructions. An assistant blows smoke on his hands, places them on the medicine man, and thus revives him. This practice, quite foreign to the *Eastern Timbira* and the *Sherente*, suggests *Tupí* influence. The *Pau d'Arco* shamans are wonderworkers who commune with snakes, jaguars, and other beings and exert great influence; they do not derive their powers from the souls of the dead.

Apinayé pathology, apart from epidemics due to White contacts, recognizes soul-loss, soul-intrusion, and sorcery. Soul-loss especially afflicts young children; sometimes it is the shadows of fruits that capture the soul. Complementary is the idea that the souls of certain plants and animals may cause disturbances by entering their consumer's body. The shadow of a fleet beast quickens the pulse, a turtle's impedes it, etc. The doctor then resorts to a double procedure: He kneads the body until he can suck out the disease from a particular spot; then makes his patient drink the infusion of a specific and rubs the dregs on his body, for corresponding to every edible beast or plant there is some plant antidote marked as such by an external criterion. Thus, deer medicine is derived from a species whose podlike fruits suggest antlers. Similar notions as to soul-loss and intrusive causes of disease occur among the *Northern Cayapó.* Finally, the *Apinayé* sorcerer blows disease from the palm of his hand or puts it on his trail. Such witchcraft does not presuppose a shamanistic revelation, but it takes a professional to counteract it by suction, the extract being then exhibited to spectators.

Unlike the *Timbira*, the *Sherente* have shamans blessed not by spirits of the dead, but by stars. The pupils of Mars suck out the disease in the form of maize kernels or bits of wood, whereas Jupiter or Venus visionaries own a magic wand with which to take out the trouble-makers at the distance of 6 feet (1.8 m.). Those who have Mars as their tutelary treat snake bites.

The were-beast motif seems to be restricted to the *Northern Cayapó.*

Magic.—Magic in a broad sense is common property. To stave off rain any *Apinayé* layman may wave a shrub with special virtues; and any *Sherente* may burn cottonseeds. On all sorts of occasions the *Canella* touch a species of tree that symbolizes toughness in order to acquire this quality. Contagious magic of the classical form, however, is lacking. When an *Apinayé* throws clipped hair into a creek, it is to promote the growth of hair, never for witchcraft. Similarly, the *Sherente* throw ceremonial articles into the water in order to prolong the former wearer's life.

Ceremonial.—*Ge* ceremonialism is only in part religious, hardly at all so among the *Canella*, where this aspect of life is most highly elaborated. Characteristically, in the three representative tribes masquerading has no sacred connotation. On the other hand, ceremonial is persistently linked with social structure, as when the definitely religious Great Fast, of the *Sherente*, aligns celebrants by moieties and stresses the narkwá bond. Again, the second major festival of this people, the feast of the dead, is held only for certain dignitaries and their wives, the performance being incumbent on the honored person's survivors in his association; further, guests from other villages camp according to the usual arrangement by moieties and clans in a tribal settlement. In the Great Anteater masquerade (pl. 102), organized in turn by the four men's associations, the costume makers are chosen two from each moiety; the members of the association take up positions by moieties; and the actors belong to a particular society. As to the frequent name-giving festivities, the names of males belong to the *Sherente* moieties, and the two criers functioning there represent these units, which form the basis of the celebrants' alignment.

The *Pau d'Arco* attach no special importance to initiation, which is a simple annual ritual for only a few boys at a time, their seclusion coinciding with a maize harvest festival. These *Cayapó* share the Anteater performance of the *Apinayé* and *Sherente* and, further, have borrowed the bō masquerades of the *Carajá.* They also, like the *Sherente* and *Mashacalí*, impersonate the spirits of the deceased.

Canella ceremonialism is too complex for a brief outline. Every year there is held either one of the two initiation ceremonies or, according to the council's discretion, one of several other major festivals. Both phases of initiation involve a 3-month segregation terminating in a 3-day and a fortnight's celebration, respectively. However, the seclusion differs in severity, a novice of the first phase publicly appearing for a plaza dance every afternoon, whereas one of the second degree remains shut up in a cell of his matrilineal home. Only the first stage has a religious flavor: The boys gain contact with the spirits of the dead, who are lured to the site by the chanting; they enter the boys' bodies, whence they are ultimately driven by ablution and flagellation. The second initiation ceremony is to promote the youths' vitality as a preparation for marriage, and in the terminal rite each future mother-in-law leads her daughter's prospective husband by a cord.

The major festivals are highly composite. Dances and songs mingle with log races, the farcical antics of the Clown society, the dramatization of a game drive, and the attempts of the Jaguar society to catch the Agouti membership. But the lesser performances, such as those held to open and close the ceremonial season, are equally characteristic. In all these solemnities the religious factor is rarely present; magic figures more frequently, and the initiation festival harbors social motives, but, preponderantly, *Timbira* ceremonialism is an end itself—the proper performance of traditional procedures in correct decorative outfits catering to the actors' and the spectators' entertainment.

MYTHOLOGY AND LITERATURE

A number of mythical conceptions may be noted apart from tales. Though without a true cosmogony, the *Sherente* have some relevant ideas. Earth, sky, the underworld, Sun, and Moon are eternal, the two celestial deities being sometimes separated from their substrata. Carrion vultures peep through openings in the sky down upon the earth. On opposite sides of one hole live Sun and Moon, the former flanked by the Belt of Orion on one side and both Jupiter and Venus on the other. These Indians greatly dread a cataclysm: They supposed that Halley's comet in 1910 would usher in a world fire (a belief shared by the *Canella*); took an overflowing of the Tocantins River in 1926 for a repetition of the mythical deluge; and interpreted solar eclipses as the beginning of "the cold night" during which a cannibalistic demon will destroy humanity, a consummation it has hitherto eluded. These catastrophes are conceived as Sun's punishment for the Indians' wickedness.

The *Canella* also believe in celestial carrion vultures. They hold that the ends of the rainbow rest in the open mouths of two anacondas. The Milky Way is interpreted as a rhea by both *Timbira* subdivisions.

Thunder, the rainbow, and meteors loom prominently in *Pau d'Arco* lore.

Among the tales the Sun-Moon myth stands out for its complexity, in connection with religion, its intrinsic interest, its distribution over a large part of the entire region—certainly among both *Timbira* and *Akwẽ*, though it is not demonstrated to date for the *Northern Cayapó*.

It differs sharply from the twin hero stories of South America, for the *Ge* heroes are not twins, nor even brothers, but unrelated companions. Thus the distinctive episodes of the *Tupinamba*, *Apapocuva*, *Carib* cycles—dual paternity, Caesarean operation, testing of the boys by their father—automatically drop out. What remains is the unequivocal superiority of one hero over the other, whose stupidity or stubbornness precipitates difficulties, even a general conflagration, and makes him the target of his mate's teasing. This contrast is, however, less marked among the *Sherente.* Despite his inferiority, Moon is not negligible as a transformer. While Sun creates furry game from slices of flesh, Moon similarly produces game birds (*Canella*); Sun creates good-looking people, Moon ugly ones. In a measure he is even able to thwart his cleverer comrade's plans. Annoyed by one of Sun's tricks, he makes the burití palm shoot up so that man can no longer reach fruits from the ground, and his meddlesomeness stops axes from chopping down trees without human labor. However, there is nothing like the dualism of the *Yahgan*, neither of the *Ge* characters being concerned with the effect of his actions on future human happiness and immortality.

An important story shared by the *Timbira*, *Sherente*, and *Northern Cayapó* is that explaining the acquisition of fire from a benevolent jaguar, who has rescued the boy hero from a tree where he has been deserted by his cruel brother-in-law. Another tale reported from the *Northern Cayapó*, *Canella*, *Apinayé*, and *Sherente* relates how a man looking up at the sky wishes to marry a particular star, who comes down to him in female form. Among widespread motifs are: Sharpened-leg, the man who whittles his leg to attack a fellow-traveler (*Apinayé*, *Canella*, *Northern Cayapó*, *Warrau*)*;* the dwarf parrots that assume the shape of women (*Apinayé*, *Carajá*, Rio Yamunda); the Amazons who kill male children (*Aspinayé*, *Carajá*, *Taulipang*, *Tupinamba*); the rolling skull (*Apinayé*, Bolivian highlands, Argentina, *Araucanians*, Chaco, etc.).

A striking feature of ceremonial myths is the artificial secondary association of tales with the ceremonies they purport to explain.

LORE AND LEARNING

Little is to be recorded under this head. The numerical system of our *Ge* was formerly extremely limited, and astronomical knowledge was in its infancy. The *Canella* knew only a few constellations, notably the Seven Stars, whose appearance above the western horizon signalized the approach of the rainy season and the need for making clearings. Time is reckoned by lunar phases, which remain unaccounted for, and by the seasons, dry and rainy, the former coinciding more or less with the ceremonial period. The *Canella* do not know the number of full moons in the year; there is no attempt to determine the solstice or to use it in time reckoning.

The apparently nonshamanistic use of drawing blood from the forehead with a blocked little arrow occurred among the *Southern Cayapó* (Pohl, 1832–37, 1:406).

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THE SOUTHERN CAYAPÓ

By Robert H. Lowie

HISTORY

Southern Cayapó (*Kayapó*).—A *Ge* tribe related to, but distinct from the *Northern Cayapó.* The term "*Cayapó*," which remains untranslated, was first applied to the *Southern Cayapó* in the second half of the 17th century. Its bearer (map 1, *No. 11;* map 7) was occupying the area embracing in Goyaz all right affluents of the Paranahyba River and the upper drainage area of the Araguaya River; in southeastern Matto Grosso, all right affluents of the Paraná River as far as the Nhanduhy-Pardo River and the upper drainage area of the Taquary River and the Piquirý-Correntes River; in northwestern São Paulo and western Minas Gerais, the territory between the Paranahyba River and the Rio Grande (lat. 18° S., long. 50° W.). After endless fighting, the *Cayapó* made peace in Goyaz in 1780, and, in 1910 about 30 to 40 survivors were living below the Salto Vermelho (lat. 19°50′ S., long., 50°30′ W.) on both banks of the Rio Grande. Today their tribal existence has ceased.

CULTURE

Pohl (1832–37, 1:399–406) and Saint-Hilaire (1830–51, 2:94–119) both of whom visited the tribe at the aldea São José de Mossamedes, report several characteristic traits. The habitations, originally arranged in a circle, had a frame covered with palm leaves and grass thatching. The inmates slept on platform beds, had stone fireplaces, and cooked in earth ovens. In fire making, the hearth, which had a lateral groove, was held with the foot; both parts of the apparatus were of urucú. Live embers were used to singe off the hair. Black and blue varieties of maize were preferred. Cotton was neither cultivated nor spun. Textiles included mats and elliptical baskets of burití fiber. Bows, arrows, and clubs are mentioned as weapons. The *Cayapó* were especially troublesome to colonists in about 1750, and the *Bororo* were enlisted against them. In a fight, the women stood behind the men to hand them arrows. Urucú and genipa were the typical body paints. Polygyny was permitted.

Mourners gashed their chests with arrows or struck their heads. At the death of a prominent man they wailed and eulogized the deceased; the chief would club a kneeling Indian on the forehead, and the resulting blood was smeared on the corpse. Interment was in sitting position, and food as well as the dead man's weapons were deposited with the corpse.

Saint-Hilaire (1830–51, 2:105) records a Vulture and a Jaguar dance; Pohl (1832–37, 1:401) a dance in which a performer executes the incredible feat of leaping about with a log weighing a hundredweight (45.36 kg.) and throwing it to other dancers.

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THE GUAITACÁ

By Alfred Métraux

The *Guaitacá* (*Goaptaca*, *Gyataca*, *Goyaka*, *Goytakaz*, *Waitacazes*, *Oueitaca*), who are so often mentioned in the early literature,[1] disappeared before a single word of their language had been recorded, so that it is impossible to classify them. Without any valid reason they have been identified with the modern *Purí* and *Coroado*. They probably formed part of the numerous "*Tapuya*" tribes whose presence on the coast long antedated the *Tupí-Guaraní* invasions.

History and tribal divisions.—In the 16th century, they were scattered along the coast from the São Matheus River (Cricaré River) to Cape São Thome (lat. 20° S., long. 40° W.) (pl. 107). Léry (1880, 1: 78–80 and 2: 130) places them along the seashore between the Parahyba River and Macahé, where they were in direct contact with the *Tupinamba* (*Tamoyo*) of Rio de Janeiro. Though their northern border cannot be ascertained exactly, all our sources agree that they were the undisputed masters of the fertile Campos dos Goaitacazes that extend from the vicinity of Lagoa Feia to the mouth of the Parahyba River (map 1, *No. 14;* map 7).

The *Guaitacá* were divided into three subgroups. The *Guaitacá-mopi* and the *Guaitacá-yakorito* lived in the Campos dos Goaitacazes. The *Guaitacá-guasu*, who were hostile to the others, roamed inland. Thevet mentions a fourth group, the *Guaitacá-miri.*

In the 15th or 16th century, the *Guaitacá* conquered and occupied the territory of the *Papana*, a *Tapuya* tribe. In 1553, the Portuguese settled in the country of the *Guaitacá* but, after a 5-year war, were driven out. Later the *Guaitacá* raided several times the Captaincy of Espírito Santo and, in one of their numerous battles against Portuguese troops, killed Fernão de Sa, the son of the Governor General of Brazil. They not only fought the White invaders but also the *Tupinamba*, who had allied themselves to the Portuguese to exterminate their traditional enemies. In 1630, the Portuguese again undertook, and this time achieved the conquest of the *Guaitacá*. The Indians who escaped slaughter were gathered into aldeas where they were Christianized. In the first half of the 19th century, a few Indians remained near Campos and Cabo Frio. They were regarded as the descendants of the ancient *Guaitacá*. Wied-Neuwied (1820–21, 1:37) saw in the village of São Lourenzo, near Rio de Janeiro, the remainder of the *Guaitacá* who had been settled in the Jesuit missions as well as others in the village of São Pedro dos Indios. Today the *Guaitacá* have been entirely absorbed by the Neo-Brazilian population.

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[1] The scattered data on the *Guaitacá* have been assembled and summarized by Métraux (1929 c).

CULTURE

Ethnographic data in the early literature are few. The *Guaitacá* were mainly collectors and hunters, but also practiced some agriculture. Their crops were maize and some tubers; like several "*Tapuya*" tribes, they did not cultivate manioc. When hunting, they tracked down game until it was exhausted and fell an easy prey. Sharks were attacked close to the shore by groups of Indians armed with short spears. Their arrows were tipped with shark teeth.

According to Vasconcellos (1865, bk. 4, ch. 11, p. 142), the small, low *Guaitacá* houses were built "on a pile" (i. e., on piles?). This statement has been interpreted by some historians as a reference to tree dwellings, but in either case it must be accepted with reserve. They lacked hammocks and slept on the ground.

The *Guaitacá* wore their hair long, though some men shaved their foreheads. Body hair was removed.

All our sources stress the warlike character of these Indians. The *Guaitacá* also are said to have been cannibals, but the evidence is not altogether conclusive. The "*Tapuya*" as a rule, were not cannibals, though they might have adopted the practice, which was popular with their *Tupí* neighbors.

Despite their ordinarily hostile relationship, they carried on a kind of "silent trade" with their *Tupí* neighbors. Keeping at a distance from their trade partners, each group displayed the commodities which they wished to exchange. Generally European articles were offered by the *Tupinamba* and feathers and green stones for labrets by the *Guaitacá*. When the exchange had been agreed upon, each party hastily deposited the goods at a certain place and departed. Hostilities were then resumed (Léry, 1880, 1:78–80).

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THE PURÍ-COROADO LINGUISTIC FAMILY

By **Alfred Mètraux**

TRIBAL DIVISIONS AND HISTORY

The *Coroado*, *Purí*, and *Coropó* were closely related linguistically and culturally (map 1, *No. 13*). One hundred years ago the *Coroado* still remembered a time when they formed a single tribe with the *Purí*, who later, as the result of a feud between two families, became their enemies.

Coroado.—At the beginning of the 19th century, the *Coroado* occupied the plain bounded in the east by the Serra de São Geraldo (São Jozé) and in the west by the Serra da Onza, both ramifications of the Serra do Mar (lat. 21° S., long. 42° W.). They lived mainly along the Xipotó Novo River (Rio dos Coroados), but were also reported on the Rio da Pomba and on the Parahyba River (map 7). According to Eschwege (1818, 1:125), the *Coroado* were originally divided into three main subgroups: the *Maritong*, the *Cobanipaque*, and a third, the name of which had been forgotten. Two small bands that lived on the Rio Preto were called the *Tamprun* and the *Sasaricon* (*Sazaricon*) (Saint Hilaire, 1830–51, 1:125). The Portuguese named them the Coroado (the Crowned Ones), as they are known in the literature, because of their circular tonsure. This tribe, the true *Coroado*, should not be confused with the *Caingang*, who are sometimes known by the same name.

During the 17th century, the *Coroado* were raided by the Paulists and, as a result, they remained bitter enemies of the Whites until 1763, when they were induced to make peace. In 1767 they were placed under the authority of special government agents. Harshly treated by the colonists who exploited them, they were already in full decadence by 1813. There were many *Coroado* in the Capuchin mission of São Fidelis, founded in 1776 on the right side of the Parahyba River.

In 1813, the *Coroado* were scattered in 150 settlements, each consisting of one or two families. The total population was about 1,900 (Eschwege, 1800, 1:120). Saint-Hilaire (1830–51, 1:43) said that five or six hundred lived on the Rio Bonito, near Ubá.

In recent years some *Coroado* still remained in the Aldea da Pedra on the upper Parahyba River under the care of Italian Capuchins.

Purí.—The former habitat of the *Purí* extended from the Parahyba River to the Serra de Mantiqueira and the upper reaches of the Rio Doce (map 7). The *Purí* were divided into the following subtribes: *Sabonan*, *Uambori*, and *Xamixuna*. The name *Purí* was a derogatory designation bestowed on them by the *Coroado*.

In the 18th century, several hundred *Purí* were lured to Villa Rica, where they were sold as slaves. About 500 in the region of Piranga and Santa Rita placed themselves under the protection of the Portuguese and were settled near Rio Pardo by Captain Marlière, who is responsible for most of the information available on them. In 1800, a group of 87 *Purí* were placed in the Mission of São João de Queluz, where many others joined them.[1] In 1815 Wied-Neuwied saw a group of *Purí* near São Fidelis. Spix and Martius encountered another group near São João Baptista.

The tribe originally totaled about 4,000, but, after their contact with the Whites, dwindled rapidly. In 1885 there were still some *Purí* groups on the tributaries of the Manhuassu River. Their locations, given by Ehrenreich (1886), were as follows: Quartel do Principe (a border town between Minas Gerais and Espírito Santo); Santa Lucia, near Carangola; Cachoeirinha, near Alegre; and Joannes on the Rio Doce, between Santa Maria de Belen and Cuieté. One hundred and twenty-two *Purí* were also established in the Aldeamento de Muriahé. Today some *Purí* remnants may exist in the region of the lower Parahyba River.

Coropó.—The *Coropó* lived mainly on the Rio da Pomba and on the southern side of the upper Parahyba River. Eschwege (1818, 1:76) states that in 1813 all of them were acculturated and spoke Portuguese; they resided in 29 villages and numbered 291 (97 men, 96 women, 58 boys, and 40 girls).

Their language is related to *Coroado*, but not so closely as *Purí*, which is a dialect of *Coroado*.

CULTURE

SUBSISTENCE ACTIVITIES

Originally the *Purí* were typical forest nomads, who subsisted by hunting and collecting fruits and roots, especially the fruits of the sapucaia tree (*Lecythis pisonis*), palm shoots, caratinga (*Convolvulus* sp.), cava, and many other tubers. During the dry season, the *Coroado* gathered larvae of bixo da taquara, which they kept in bamboo receptacles, using the fat mainly for preparing corn cakes. Like most forest nomads, they were constantly on the lookout for honey.

The *Coroado* established in aldeas learned to grow crops and, at the beginning of the 19th century, cultivated maize, gourds, bananas, cará (*Dioscorea* sp.), and beans. They were poor farmers, however, and continued to subsist, in large measure, on the produce of the bush. The *Purí*, who lacked agriculture, looted the fields of the colonists and of the civilized Indians, mainly for sugarcane, of which they were inordinately fond. Such inroads caused continuous warfare between the nomadic Indians and the sedentary population of the region.

The *Purí* and *Coroado* are said to have been skillful stalkers and expert trackers. They lured birds by perfectly imitated calls. Nothing is known of their other hunting methods except that they caught animals in pitfalls and traps. Birds were captured by means of a noose fixed to the end of a long pole.

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[1] According to Ayres de Cazal (1845, 2:26), at the beginning of the 19th century some Christianized *Purí* lived in the village of Valença, between the Parahyba River and the Rio Preto. With them lived *Arary*, *Pitta*, and *Xumetto* Indians.

Fishing, which is barely mentioned in our sources and must have been of secondary importance, was practiced with bows and arrows and with long, multipointed spears. Hooks were introduced by the Portuguese.

The *Purí* baked their food in earth ovens or boiled it in sections of green bamboo (taquara-açu). They also roasted meat on spits. The *Coroado*, who raised some crops, had more elaborate cooking techniques and utensils, such as basketry sifters and various earthenware vessels. They prepared mush with maize pounded in cylindrical wooden mortars, boiled game, roasted it on a spit, or smoked it on a babracot. They seasoned food with malagüeta (*Capsicum frutescens*) fruits but used no salt.

DOMESTICATED ANIMALS

At the beginning of the 19th century, both the *Coroado* and the *Purí* had dogs and fowl which they had recently acquired from the Whites. They valued their dogs highly and took good care of them, but had not yet learned to train them for hunting.

HOUSES

The nomadic *Purí* built crude shelters by resting a few palm fronds against a transverse stick tied to two trees and covering them with additional leaves (pl. 110, *bottom*). The hut of the more sedentary *Coroado*, though of better construction, was obviously derived from the primitive *Purí* lean-to. It had the form of a thatched gabled roof resting directly on the ground (pl. 110, *top*). Larger huts with wattle-and-daub walls were imitations of the Mestizo house.[2]

The main piece of *Coroado* furniture was the cotton hammock. Some *Purí* used hammocks (pl. 105, *a*) of embauba (*Cecropia* sp.) fibers, but most of them slept in the ashes of their camp fires. The *Coroado* hut contained a platform for storing food and small articles, a wooden mortar, gourds, and various pieces of pottery. At night the *Purí* and *Coroado* kept a fire burning near their hammocks against the cold of the night and to ward off mosquitoes.

DRESS AND ORNAMENTS

The aboriginal *Purí*, *Coroado*, and *Coropó* went naked; but the men, when first described, had already adopted European clothes, while *Coroado* women wore home-made skirts.

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[2] The statement by Ayres de Cazal (1845), 2: 50) that from 50 to 100 people lived in a single house is certainly an exaggeration.

Feather headdresses and feather bracelets were worn by both *Purí* and *Coroado* men. Both *Purí* and *Coroado* hung around their necks or slung across their chests necklaces composed of animal teeth and of various seeds (*Canna glauca*, *Abrus precatorius*, *Ormosia coccinea*, *etc.*) Young women of both tribes wrapped bark strips around their wrists and around their legs, under the knees and around the ankles. These bindings, which served to make the joints slender, were removed after marriage.

The *Coroado* tonsure, which resembled that of a Franciscan monk, accounts for their name. Some *Purí* shaved the entire head.

All body hair was removed. Both *Purí* and *Coroado* painted dots and linear motifs in red (urucú or red clay) and black (genipa) on their persons. *Purí* children were often decorated with black spots all over the body.

Among the *Coroado*, both sexes were tattooed by a method not reported elsewhere in South America except for the *Tehuelche*: The skin was pinched between the fingers, and with a needle and a thread wet with pigment it was stitched through in circular designs or in crude representations of animals and birds (Eschwege, 1818, 1:137).

TRANSPORTATION

No craft of any kind seems to have been used by these tribes, a lack that may be ascribed to the absence of large rivers in their mountainous and forested country.

Women carried their goods in large baskets. Children were suspended on the hip with a bark sling or carried on their mother's back, supported by a tumpline or hanging in a net.

MANUFACTURES

Basketry.—*Coroado* basketry did not differ from that of the more advanced *Tupí* tribes, judging from specimens figured by Eschwege (1818, 1: pl. 2, figs. *s*, *q;* Wied-Neuwied, 1820–21, pl. 12, fig. 7). They made rectangular fans to activate the fire, long carrying baskets with open tops, and other containers of various sizes.

Weaving.—The *Coroado* made cotton hammocks and clothes. According to Saint-Hilaire (1830–51, 2:46) they wove embauba fibers.

Netting.—Carrying nets are mentioned.

Pottery.—The *Coroado* were fair potters and made large bulging jars with pointed bottoms and short necks (fig. 68, *a*). *Purí* pots were more primitive. They were globular and of a shape suggesting that of the sapucaia (*Lecythis ollaria*) fruit.

Tools.—Stone axes (fig. 68, *c*) were still used at the beginning of the last century. The stone ax blade was lashed between two sticks.

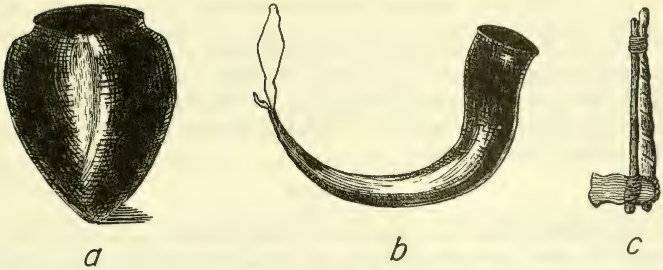

Figure 68.—*Coroado* manufactures. *a*, Pottery jar; *b*, side-blown trumpet made of cow horn; *c*, hafted ax. (Redrawn from Eschwege, 1818, opposite p. 242.)

Weapons.—Bow staves were carved of ayri or brejauba (*Astrocaryum ayri*) wood. They had a circular cross section and were about 6½ feet (2 m.) long. The string was of caraguatá or of tucum (*Astrocaryum* sp.) fibers.

Arrow shafts were made of taquara da frecha (*Saccharum sagittarum*) with feathering of the arched (tangential) type. Arrowheads were taquara blades, barbed wooden rods, and bulging knobs.

Lances are mentioned, but there is no reference to clubs.

Children used pellet bows (pl. 105, *b*) as playthings and to develop their marksmanship.

Fire making.—Fire was produced by a drill which was generally inserted into an arrow shaft. Hearth and drill were made of a dry creeper.

SOCIAL AND POLITICAL ORGANIZATION

The *Coroado* tribe was split into small groups or bands, each of which comprised one or two extended families totaling some 40 people. Each group lived apart, uniting with others only for defense against enemies or to wage war. Such a group was under the authority of a chief, generally the oldest man of the community.

Within the group there existed a great amount of cooperation. They cultivated their fields in common, hunted together, and enjoyed "commonly the produce of their work" (Eschwege, 1818, 1:126–127). Young people submitted willingly to the authority of older persons and of valiant hunters and warriors. Leaders were distinguished by beautiful feather diadems.

COURTESY RITES

When two parties of *Purí* met, one would make a speech and then both would burst into laments for the dead.

WARFARE AND CANNIBALISM

Both the *Purí* and *Coroado* have been accused of cannibalism, without convincing evidence. It is said that when celebrating a victory feast, the *Coroado* dipped the arm of a slain enemy in chicha and licked it. They kept the skulls of their victims as trophies and made flutes out of their bones.

LIFE CYCLE

Childbirth.—The *Coroado* woman when pregnant observed chastity. She and her husband refrained from eating the flesh of certain animals and lived chiefly on fish and fruits. Delivery took place in the forest in a spot protected from moonlight, which was considered harmful to a newborn baby. Soon after the birth, the mother washed herself and resumed her normal activities. A few days later, both she and the baby were fumigated with tobacco smoke by a shaman, an occasion which was celebrated by hearty drinking. Children were nursed until they were 4 to 5 years old.

Marriage.—Men married at the age of 18, girls when they were about 12. The marriage ceremony is said to have consisted of the presentation of game and fruit to the bride's parents. Acceptance of the gift sealed the marriage. The new couple settled with the family of either spouse. Monogamy seems to have prevailed, though chiefs or good hunters had two or more wives. Marital ties were brittle and easily dissolved. Women were often blamed for the separation because of their misconduct.

Death observances.—The *Coroado* placed their dead in large jars, if these were available, after they had broken the limbs of the corpse, lest the ghost return to haunt the living. A person was buried in his hut, his possessions were deposited over the grave, and the house was burned or abandoned. If the deceased had been a chief, the whole settlement was deserted. Relatives cut their hair, and the women painted their bodies black. They uttered funeral laments at dawn, in the evening, and every time they happened to pass by a grave. The *Purí* pronounced funeral speeches in honor of their dead (pl. 108). The soul of the departed went to a pleasant wood full of sapucaia trees and game, where it was happy in the company of all the deceased.

ESTHETIC AND RECREATIONAL ACTIVITIES

Musical instruments.—A cow-horn trumpet with a lateral mouthpiece was one of the main musical instruments. With it the *Purí* sounded alarms and gathered men for attacks or for drinking bouts. In the Museum of Vienna there is a composite trumpet attributed to the *Coroado*. The bell consists of a spiral twisted skin, most likely that of an armadillo (Izikowitz, 1935, p. 234). The blowhole is on the side. Eschwege (1818, 1:127) mentions also trumpets made of the long bones and even of the skulls of enemies.

Dances and songs.—There are several good descriptions of *Coroado* and *Purí* dances (pl. 108). (Spix and Martius, 1823–28, 1:373; Eschwege, 1818, 1:142; Saint-Hilaire, 1830–51, 1:39.) These tribes danced in two straight lines, the men in front with bows and arrows, the women behind.

> In the first three steps they [the *Purí*] put the left foot forward and bent the left side; at the first and third step they stamped with the left foot, and at the second with the right; in the following three steps they advanced the right foot at the first and last, bending on the right side. In this manner they advanced a little alternately in short steps. As soon as the song was concluded, they ran back in disorder as if in flight; first the women with their daughters, and then the men with their sons. After this they placed themselves in the same order as before and the scene was repeated. [Spix and Martius, 1823–31, 1:373.]

A dance to celebrate the killing of a jaguar rested on the same principle, but the dancers stooped, holding their hands on their waists and jumping with more vivacity.

Songs referred to beer or praised the looks of a person in the audience (Eschwege, 1818, 1:142).

Drinking bouts.—The *Coroado* acquired the habit of drinking maize beer after they had become agriculturists under White coercion. They raised maize more for beer than for food. Fermentation was accelerated by the addition of saliva. Before starting a drinking bout, a chief would chant, dance around the beer jar, and taste the greasy surface (pl. 109).

Narcotics.—The *Coroado* smoked tobacco in clay pipes or in bamboo tubes.

SHAMANISM AND RELIGION

Ghosts, which often appeared in the guise of lizards, caimans, jaguars, deer, or deer-footed men, were the souls of wicked persons or of people who had not been buried according to prescribed rites.

Shamans.—Shamans consulted the souls of the dead about the outcome of important events, such as a war party or an expedition to collect ipecacuanha. They also summoned spirits to inquire where abundant game could be found or to ascertain whether they were threatened by a war party. When the *Coroado* feared an attack by their traditional enemy, the *Purí*, their shamans conjured up the soul of a dead *Purí* and asked him the whereabouts of his fellow tribesmen. If the answers were alarming, the shamans advised the people to take defensive measures and to build a fence around the camp.

The *Coroado* shaman conjured spirits at night while blowing clouds of smoke from his pipe. Spectators could hear the steps of the approaching spirits and their whistled answers to the questions of the shaman. The spirits departed crying "like macuco birds."

The *Coroado* lived in great fear of sorcerers. If witchcraft were suspected to be the cause of a death, some flesh or skin was cut from the victim's head and countermagic was practiced on it.

Medicine.—Sick people were treated by shamans, who sucked them, fumigated them with tobacco smoke, and rubbed them with saliva or with certain herbs. The *Purí* exposed sick people to a steam bath—the patient crouched on all fours over a large glowing hot stone, which women sprinkled with water from their mouths.

The *Coroado* practiced bloodletting with a small bow and an arrow headed with a piece of crystal. This operation was also performed at intervals on healthy persons, especially women. The *Coroado* incised the skin around a sore spot with a sharp stone or a piece of bamboo. Some men, to improve their marksmanship, cut themselves slightly across the upper arm (Eschwege, 1818, 1: 137).

Shamans used various herbs in their massages and put different leaves and grasses on wounds and infections. Most of their drugs were for external use, and it has been observed that, like the Chaco Indians, the *Coroado* showed a strong reluctance to taking internal medicines.

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THE BOTOCUDO

By Alfred Métraux

TRIBAL DIVISIONS AND HISTORY

The Botocudo (*Aimboré*, *Amburé*, *Aimoré*, *Guerens*, *En-hérakmung*, *Engeräkmung*) were also called *Borun*, the tribal designation for Indians (map 1, *No. 15*; map 7). According to Pero de Magalhães (1922, pp. 139–141) the *Aimoré* were, in the 16th century, found along the coast from the Capitania dos Ilhéos to Porto Seguro. They had probably migrated from the interior of the "sertão" (lat 18° S., long. 42° W.) to pillage and kill in the coastal region. Cardim (1939, p. 174), who also places them along an 80-league strip of land near the coast, reports their raids in the region of Porto Seguro, Ilhéos, and Camamu.

About 1560 the *Botocudo*, who were harassing the *Tupinaqui* and the Portuguese, were driven into the "sertão" by the governor of Bahía, Men de Sá. In the second half of the 17th century, perhaps in alliance with other tribes, they laid waste the towns of Porto Seguro, Santo Amaro, and Santa Cruz. For more than a hundred years they harassed the Mestizo and Portuguese settlements of the coast and remained the undisputed masters of the Serra dos Aimorés. Their raids led to bloody reprisals, and until the second half of the 19th century the colonists hunted them down. In the beginning of the 19th century there were already many families or bands settled near ranches, where they served as day laborers, or established in "aldeas" (eight in 1817). These tame *Botocudo* were quick to adopt agriculture and became the auxiliaries of the Whites against their "wild" fellow tribesmen. (See Tschudi, 1866, 2:257–265.)

At the beginning of the 19th century their boundaries were the Rio Pardo and Rio Doce (lat. 15° to 19° S.), and they wandered from one river to the other along the State of Minas Gerais. The extreme point reached on the Rio Doce was San José da Barra Longa; on the Rio Grande de Belmonte, Minas Novas. Some *Botocudo* groups lived north of the Rio Pardo, but the bulk of the tribe inhabited the forests of the Rio Doce and of the Rio Grande de Belmonte.

On occasion they descended the São Mateus River as far as the coast. In 1862 Tschudi (1866, 2:264–267) found the *Botocudo* divided into the following groups: (1) The *Naknenuk*, on the upper Mucurí and Todos os Santos Rivers, who were split into small bands or extended families, each bearing the name of their leader: (2) the *Aranau*, on the same river, south of the Serra Mapmap Crak: (3) the *Bakué*, in the region between the Rio do Pampan and Santa Clara; and (4) the *Urufu*, west of the last almost to the seashore. Small family groups were scattered near the headwaters of the Rio Pardo; in the southern valley of the Mucurí River, on Riberão de Saudade, lived the *Poschischa;* east of Riberão das Lages lived the *Mekmek, Shiporok,* and *Potik;* and in the region of the headwaters of the São Mateus River lived the *Porokun, Batata,* etc. The *Shiporok,* who were the *Botocudo* visited by Maximilian Wied-Neuwied, lived on the Urucú River, a large southern tributary of the Mucurí River.

The bands enumerated by Ehrenreich (1887, pp. 8–11) are: (1) The *Nak-nenuk* between the Mucurí, Rio Doce, Sassuhy Rivers, and the Serra dos Aimorés; (2) *Nak-erehä,* on the upper and middle Guandu River; (3) *Etwet,* on the Pocran River, a tributary of the Manhuassu River; (4) *Takruk-krak,* between the Serra dos Aimorés and the Sassuhy Grande River; (5) *Nep-nep,* east of the Serra dos Aimorés to the region of the São Mateus River; (6) *Nak-poruk,* on the left side of the Rio Doce between Figueira and the Guandu River; (7) *Arauan,* on the Arauan River, a tributary of the Urupuca River; (8) *Bakúes,* north of the Mucurí River to the southern tributaries of the Jequitinhonha River; (9) *Pampan,* on the Pampan River, tributary of the Mucurí River; and (10) *Nock-nocg.*

At the time of Ehrenreich's visit, the *Botocudo* numbered about 5,000; 886 were settled in an "aldeamento" at N. S. dos Anjos de Itambacury and 241 in another "colony" at Immaculada Conceição do Rio Doce. The *Botocudo* visited in our day are those of the Rio Doce divided into: (1) The *Minhagiruns* of the Pancas River, a tributary of the Rio Doce near Colatina; (2) *Botocudo* of Nativadade de Manhaçu, near the Barra of the Manhaçu River on the border line of Minas Gerais and Espírito Santo; and (3) *Botocudo* of Lapa, about 37 or 43 miles (60 or 70 km.) upstream from Manhaçu. The natives of the two latter settlements called themselves *Gutu-krak.*

In 1939, Nimuendajú encountered 10 survivors near Itambacury, 25 miles (40 km.) southwest of Teófilo Otoni, and 68 at Guido Marlière on the Rio Doce. They represented a number of once independent bands, such as the *Chonvúgn, Nakpié,* and *Nakrehé.*[1]

In 1862, Tschudi (1866, 2 : 267) reckoned those of the Mucurí Basin at from 2,800 to 3,000. The *Botocudo,* long considered typical *Ge,* are today recognized as an independent family.

The term "*Botocudo*" has also been applied to two other groups related neither to the above groups nor to each other, viz., the "*Botocudo* of Santa Catarina," who are related to the *Caingang,* (p. 448), and hence are *Southern Ge;* and the "*Botocudo*" of Paraná, between the Ivaí and the Piquirý Rivers, who speak a *Guaraní* dialect and correspond to Von Ihering's "*Noto-Botocudos,*" Telemaco Borba's "*Aré,*" and V. Frič's "*Šetá.*"

CULTURE

SUBSISTENCE ACTIVITIES

Farming.—Under Brazilian influence, the *Botocudo,* who had hitherto stolen cultivated plants from Whites at the risk of their lives, became farmers during the last century. Already in Wied-Neuwied's day, they had begun to practice some agriculture; and 30 years ago the *Borun* made clearings to raise manioc, sweet potatoes, and bananas, living there until the end of the harvest. As is often the case when agriculture is acquired from Europeans, the men tilled the soil and planted, but women harvested.

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[1] In 1926, the east *Nak-nenuk* lived at the station of Pancas (Fróes de Abreu, 1929, p. 3).

Collecting.—The economy rested essentially on hunting by men and collecting by women. In the woods were found the pods of the inga (*Inga* sp.) and of the feijão do monte and the fruits of the maracujá (*Passiflora* sp.), the araticu (*Annona montana*), the guayaba (*Psidium guajava*), the jabuticaba (*Mouririra pusa*), and the imbú (*Spondias tuberosa*). The dry season, when the sapucaia (*Lecythis pisonis*) and the cocos imburu (*Cocos* sp.) ripened, was the happiest time of the year. At that time, the Indians scattered through the woods and hills to harvest these fruits. After breaking the hard nuts of the cocos with a heavy stone, they extracted the white kernel with a bone chisel. They were fond of the terminal shoots of the issara and other palms. They dug out the roots of the creepers called cara do matto, and roasted creepers full of a tasty pith.

In September they ate the fruit of the arborescent nettle (cansação); in October, the genipa fruit; and later, the bush pineapples.

The *Botocudo* regarded as a great delicacy the larvae of *Macrodontia*[2] *cervicornis*, which they pulled out of bottle trees (*Chorisia ventricosa*) with a pointed stick. They also consumed other insect larvae, including those of the *Rhynchophorus*[3] *palmarum*. They had a real passion for honey, and upon finding a tree with a beehive, they would fell it, enlarge the hole, and remove the combs and pupae. If they could not get the honey at the bottom of the cavity, they soaked it up with a brush, made of shredded fibers, and squeezed it out into water.

Hunting.—Though game was not overabundant, the *Botocudo* were particularly skillful in following tracks and in finding their way in the thickest jungle. They lured game by perfectly imitating their cries and built small hunting blinds from which to shoot. They soon learned to hunt with dogs stolen or bought from the Whites.

Fishing.—Until the *Botocudo* acquired European hooks they caught fish only by shooting them with special bows of coco de palmito and featherless arrows, but before discharging these they threw a crushed root into the water, probably as a bait.[4]

Cooking.—Large animals were singed over the fire and then roasted for a short time on a stick, for the *Botocudo* liked meat half raw. Surplus meat was hung from the huts and exposed to smoke. Most foods were roasted or baked under the ashes, but some were boiled in large sections of green bamboos. They did not use any condiment.

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[2] Formerly *Prionus*.

[3] Formerly *Curculio*.

[4] Ehrenreich (1887, p. 29) states that they drugged fish with the timbó creeper (*Paullinia* sp).

HOUSES AND VILLAGES

There were two types of huts: those for long use were constructed by driving stakes in a circle and covering them with leaves, grass, or branches; temporary shelters were made by sticking large palm fronds in the ground, their slender ends forming an arched or domed roof. Several families shared these dwellings. Curiously enough, in more recent times the *Botocudo* had only primitive wind screens made by leaning a few branches or leaves against a horizontal pole tied to two trees or a crude frame, additional branches and leaves being placed in front or on the side in rough weather. One or more families camped under the protection of such a screen, each with a separate fire. The largest villages consisted of about eight shelters.

The *Botocudo* slept on the ground on a skin, on some boughs, or on a layer of fibers of the pao d'estopa.

DRESS AND ORNAMENTS

Both sexes went naked (pl. 106). Men encased their penises in a sheath (pl. 105, *e*) of leaves or bound their foreskins with cotton thread. They also held their penises raised against the abdomen with a belt. Later they adopted the loincloth or an apron of fibers.

The *Botocudo* owe their name to the large cylindrical wooden plugs worn by men and women alike in the ear lobes and lower lips. These cylinders, of light wood (*Chorisia ventricosa*), were 3 to 4 inches (7.6 to 10 cm.) in diameter and 1 inch (2.5 cm.) thick. The ears were perforated at the age of 7 or 8, the lips a few years later.

Men's feather ornaments (pl. 105, *k*) consisted of tail feathers fixed to their heads with wax or a string of feathers attached by a cord around the arms, thighs, and legs. No feathers were worn by women.

Necklaces (pl. 105, *h*), bracelets, and anklets were made of seeds, animal teeth, or peccary hoofs.

The *Botocudo* plucked all hair from the body and even from the eyebrows and eye lids. Both sexes shaved their hair in a band above the ears so that the mass of hair formed a sort of skullcap. This style has now disappeared.

Tattooing was unknown. For a feast or the warpath the *Botocudo* painted their faces red with urucú and their bodies black with genipa, leaving only the lower limbs unpainted. On some occasions they blackened only one side of the body. The circles traced on their bodies were called "jaguar spots"; crescents, "fish scales"; and streaks, "bird steps."

They also smeared their entire bodies with urucú oil as a protection against mosquitoes.

TRANSPORTATION

Though the lack of canoes has been interpreted as a sign of primitiveness, it must be remembered that navigable streams are few in the *Botocudo* region. After European contact, the *Botocudo* soon learned to make dugouts and were even praised as good boatmen. Formerly, they crossed a river by balancing themselves on a creeper, sometimes using another creeper as a railing.

Goods were transported in large nets suspended on the back by a tumpline. Children were carried on the back in a large bark sling.

MANUFACTURES

Basketry.—Nets made basketry superfluous. Headdresses of palm leaves are the only kind of basketwork ever mentioned.

String and cord making.—For cordage the inner bast of the bottle-tree (*Chorisia ventricosa*) bark was thoroughly chewed by the women. The masticated fibers were dried in the sun and then immersed for 24 hours in the juice of the leaves of tinta capichaba to dye them violet, or in the juice of genipa fruit to turn them blackish. When put in contact with crushed bark of the urucú tree they took on a yellow tinge. The women twisted these fibers into two-ply strings on their thighs with the flat of the hand. They also drew fibers from pieces of tucum (*Astrocaryum* sp.) bark or caraguatá leaves which had been left to rot in water.

A net maker started with two loops fixed to her toes and from them built up other rows of simple loops ("point de tulle simple"). The finished bags (pl. 105, *l*), resembling the Chaco carrying nets, were similarly decorated with stripes of different colors.

Pottery.—The existence of pottery has been denied by several travelers, but it seems certain that, at least in recent times, the *Botocudo* made small globular pots of a grayish clay.

Tools.—Stone ax blades (pl. 105, *g*) were lashed between two sticks and coated with wax. Bamboo splinters were used as knives (pl. 105, *f*).

Weapons.—The Portuguese, describing the 16th-century *Aimoré*, stress the unusual length of their bows; modern specimens measured only 5 to 7 feet (1.5 to 2.1 m.). They were made of the blackish trunks of palm wood, generally *Astrocaryum ayri*, split into four sections and scraped until the shaft was rounded and tapered at both ends. The embira or caraguatá strings were made taut or lax by twisting. Some bows were decorated with yellow or black wrappings of guembé strips. Often bows were trimmed with rings or bunches of feathers.

Two kinds of reeds, cannachubas and ubá (*Gynerium parviflorum*), were used for the arrow shafts. The arrowheads were of the traditional three types: (1) Lanceolate bamboo blades; (2) cylindrical rods of airi or páo d'arco wood with lateral barbs; and (3) bird arrows tipped with wooden knobs. Two feathers with the barbs notched on one side were set tangentially against the shaft and fastened at both ends (eastern Brazilian or arched feathering). Fishing arrows had neither barbed heads nor feathering. The archer seized the butt of the arrow between the thumb and the second finger and pulled the cord with the other fingers. The range was about 100 feet. A guard protected the archer's wrist against the impact of the bowstring. The pellet bow is still used by present-day *Botocudo* to shoot small birds.

The heavy clubs ascribed to the ancient *Aimoré* have never been observed by modern travelers. Like many Indians of the forest, the *Botocudo* protect their retreat by setting sharp bamboo splinters on the paths which they follow.

Fire making.—The *Botocudo* produced fire by the drill method. The drill was either a stick 8 to 9 feet long (about 2.8 m.) or a short stick of Ficus or Cecropia wood inserted in an arrow shaft. When drilling fire, the *Botocudo* knelt and held the hearth under the left foot. Fire was produced in 30 to 40 seconds. Small torches were made of beeswax.

SOCIAL ORGANIZATION

There were bands of about 50 to 200 individuals grouped into extended families. The head of a band was its strong man, strength being defined in terms of "supernatural power," a prerequisite of the chieftaincy (Nimuendajú, mss.). His main function was to prevent internal quarrels, distribute game among the several families, and lead war parties. Generally undistinguishable from his followers by any particular mark, he was painted somewhat differently in war, and may have worn a special basketry headdress. In camp the family groups observed a set order, the oldest man always staying at the end of a line of huts.

There were constant conflicts between bands, typically settled by duels between pairs of opponents who alternately struck each other with long sticks (pl. 109). Women took part in the fights, wrestling and boxing women of the opposite group. Revenge and sexual jealousy were the chief motives for feuds; there is no evidence of fights because of suspected sorcery.

Manizer's and Nimuendajú's imperfect data on kinship terms suggest a generation system without distinction of maternal and paternal uncles and aunts.

CANNIBALISM

The *Botocudo* have repeatedly been branded as ferocious cannibals, but the evidence is dubious, generally derived from hearsay stories.

LIFE CYCLE

Childbirth.—Women gave birth in the bush unaided and returned to the camp after a bath.

Obstreperous children were seldom beaten; instead, their mothers threatened them with ghosts, jaguars, and White people.

Marriage.—Girls married at puberty, but during youth the conjugal ties seem to have been very weak. Often a man would rear an orphan or a captive girl until she was old enough to be taken as a wife. Groups seem to have been exogamous. For a marriage within the band, the parents had to give their consent and expected some small gifts. Polygyny was the privilege of energetic, skillful hunters who could support several wives, and was especially common among chiefs. Some *Botocudo* had up to 12 mates, but one or two was the usual number. Spouses were jealous and thrashed each other if they discovered their mate "in flagranti."

Nimuendajú recorded five cases of sororal polygyny, one of nonsororal polygyny, and two of the levirate. The latter was certainly not compulsory.

There is no indication of a parent-in-law taboo.

Funerary rites.—On this point our sources disagree. Wied-Neuwied's *Botocudo* (1820–21, 2:56) tied the hands of the deceased and buried him in an extended position. After the grave had been filled, it was covered with sticks and a fire was built on both sides to keep the bad spirits at bay. For a prominent person, a small cabin was erected above the sepulcher. On the other hand, Saint-Hilaire (1830–51, 2:161) reports interment in a flexed position in a shallow hole, over which a square and flimsy shed was built. The surroundings were cleared and feathers and animal hair attached to the shed. Again, according to Manizer (1919, p. 264), the *Botocudo* abandoned the corpse in the dwelling or left it in the forest with a few belongings.

MEDICINE

According to Ehrenreich (1887, p. 35), the *Botocudo* knew many medicinal plants. They used ipecacuanha, several purges, such as andaussu (*Joannesia princeps*), and diaphoretics, such as the jaborandi. Wounds were covered with crushed plants or smeared with the stringent juice of the cotton tree, rich in tannin. Chest diseases were treated with infusions of a creeper or by smoking or snuffing powder made from the same plant. Skin diseases, e. g., smallpox, were treated by rubbing the body with a plant, the jaborandi do matto. For itching, the skin was scratched with thorns. Feverish persons sat by a fire or took baths in the river. Sick people were also exposed to the steam produced by pouring water on glowing stones.

The *Botocudo*, like the *Purí-Coroado*, practiced bloodletting with a small bow and arrow or simply with a bamboo splinter. They generally cut a vein on the temples.

Medicine men are not reported among the *Botocudo*, except as mentioned under Religion.

ESTHETIC AND RECREATIONAL ACTIVITIES

Musical instruments.—The nose flute is the most characteristic music instrument of the *Botocuda.* The blowhole is perforated through a septum at the proximal end of the reed, which has two stops, one for the forefinger and the other for the little finger. The Indians also produced shrill sounds by blowing into a funnel made of a twisted blade of grass with a transverse blade of grass across the small aperture. They signaled with whistles made of the giant armadillo's tail. Dancers marked time by stamping tubes of bamboo sections.

Songs.—*Botocudo* men manifested extreme emotion by breaking into short songs in the course of ordinary speech. Some songs continued a spoken lament; others expressed joy in varying pitches. Wied-Neuwied describes male singers as putting the left hand over the head or a finger into the ear. Dance songs were improvisations on some event of the day but with traditional refrains repeated by everyone.

Dances.—Men and women formed a circle, each resting his arms on his neighbors' shoulders, then, stamping the ground with a foot, turned in a circle singing under a precentress who sat in a hut. In some dances the individual at each end of a half circle hopped on one foot, pressing the other against his neighbor's waist. Certain ceremonial dances dramatized hunting, others represented the road to the sky by a line of individuals.

RELIGION

Souls and ghosts.—Every adult has a series of souls (nakandyúng), some people as many as six. Of these, however, only one resides within the body, the rest remaining nearby. A child gets his first soul when about 4 years old, gradually acquiring others. In sleep the primary soul may leave the body and have experiences of its own—the sleeper's dreams; its loss causes illness. Before a person dies this soul dies within him; the others accompany the corpse to the grave and soar above it, weeping unseen. These souls no longer eat and would perish unless pitying sky spirits, the marét, carried them off to their land, whence the souls never return and henceforth lose all significance for mortals. Unlike the *Camacan* and *Mashacalí*, the *Botocudo* do not believe in the transformation of souls into man-eating jaguars.

From the bones of the corpse rise ghosts (nandýong or nanitiong), which reside in an underworld where the sun shines during the terrestrial night. Although the marét chase returning spooks away on sight, a nandyóng occasionally appears to human beings, whose safety lies in bodily thrashing the apparition. Women are thus the principal sufferers from ghosts' attacks.

Sky spirits.—In the sky dwells a race of spirits known to ordinary mortals as tokón, but to their protégés (yikégn) as marét. With these favored few the spirits communicate, and to them they grant extraordinary powers. The marét are of both sexes and all ages, live in abundance without having to work, suffer neither sickness nor death, and through their favorites bestow boons on mankind.

The yikégn, essentially shamans, supplicate the marét for remedies against sickness and may even acquire the power of reviving the dead. When people lack anything they appeal to the yikégn, who sing to the marét and get all manner of victuals or other objects for the petitioners. The shamans further can turn themselves and others into animal shapes.

All chiefs are yikégn, but not all yikégn are chiefs. Characteristically, a man acquires power in the woods by meeting a group of marét who begin playing shuttlecock using him as the ball, and end by conferring supernatural powers on him.

Within the village a post about 10 feet (3 m.) high is sacred to the marét. It is of *Myroxylon balsamum* wood; its upper third is carved into a human image with the face turned east, the body being formed of the red heartwood, the head and the limb stumps of the white sapwood. When a shaman sang to the spirits, all the villagers would paint themselves with red paint and assemble in a circle round him, but the 6 to 12 marét who came would not be visible except to the yikégn. His chants could induce them to descend by the pillar, stand near it, and watch lest harm come to the village; after the ceremony, the marét would return to the sky.

The spirits are ruled by the oldest of all, whom Manizer calls Maretkhmakniam and Nimuendajú terms Yekán kren-yirugn, "Father White-Head." He, too, lives in the sky, but somewhat apart from other marét, and never comes down to the earth. Manizer's informants described him as a giant with white hair on his head and red hair on his face, and as killing women with his huge penis. He sends rain and storms, kills enemies with invisible arrows, and causes the phases of the moon by covering it with a blanket. He instituted the use of labrets and earplugs, and certain songs belong to him. Nimuendajú was unable to corroborate most of these details.

MYTHOLOGY

Botocudo mythology is imperfectly known, but some details are suggestive. It was believed that the moon might fall on the earth and kill everyone. The rainbow is the shadow of the sun. Eclipses are due to quarrels between Sun and Moon, who turn black with rage and shame at each others' vituperation. The sky was once close to the earth, but later separated. A great snake is lord of the water, signals to the rain, and makes it fall; the rainbow is called "the urine of the great snake." Hummingbird at one time hoarded all the water in the world, but was trailed by one of his fellow beings while bathing, and this creature splashed the water in all directions, thus creating the rivers and brooks. Similarly, Carrion Vulture alone originally possessed fire; Mutum played dead and was about to be roasted by Vulture, but seized a firebrand and, when pursued, passed it on to Heron, who hurled the fire in all directions. Unlike the *Camacan* and *Mashacalí*, the *Botocudo* do not stand in superstitious awe of the jaguar, relevant tales being merely hunting stories.

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THE MASHACALÍ, PATASHÓ, AND MALALÍ LINGUISTIC FAMILIES

By Alfred Métraux and Curt Nimuendajú

TRIBAL DIVISIONS AND HISTORY

The *Mashacalí* linguistic family includes the following tribes: *Mashacalí*, *Macuní*, *Cumanashó* (*Cumanachó*), *Caposhó*, *Pañame* (*Panyame*), and *Monoshó* (*Monoxó*). It was formerly considered part of the *Ge* family, but liguistic studies have proved the relationship illusory (map 1, *No. 16;* map 7).

Nimuendajú found his own *Mashacali* and *Patashó* clearly related, whereas Wied-Neuwied's *Patashó* and Saint-Hilaire's *Mashacali* word lists raise grave doubts of a relationship. Nimuendajú explains the difference between his and Wied-Neuwied's vocabulary as possibly due to local specialization—the groups visited being respectively 186 miles (300 km.) apart—and also to intermarriages with *Patashó*.

The *Macuni* (*Moaquanhi, Macuaní, Makuní*), who originally lived with the *Monoshó* in the mountains near the borders of the States of Minas Gerais, Porto Seguro, and Bahía, were driven from their home country by the *Botocudo* and took refuge at Alto dos Bois, in the district of Minas Novas (State of Minas Gerais).

The *Mashacali* (*Mashakalí, Mashacarí, Maxacali, Machaculi*) came originally from the eastern borders of the State of Minas Gerais (lat. 16° S., long. 40° W.), but were pushed by the *Botocudo* toward the coast. They first occupied the upper course of the Mucurí River, and later settled near Caravellas. In 1801 they returned to the Jequitinhonha River near Tocoyós; finally, they were established on the Jequitinhonha River near São Miguel. Wied-Neuwied saw a few above Villa Prado on the Rio Prado (Tucurussú River). In 1939, 120 *Mashacali* were living in two neighboring settlements in the region of the headwaters of the Itanhaem River, State of Minas Gerais, near the Bahía border.

The former habitat of the *Caposhó*, *Pañame*, and *Monoshó* was between the Jequitinhonha, Araçuahí, and Mucurí Rivers. According to Ehrenreich (1896, p. 116), they were subgroups of the *Patashó*, but Martius' word lists for those tribes disprove this relationship. Loukotka (1931 c) and Nimuendajú regard them as tribes belonging to the *Mashacali* linguistic family. The *Cumanashó*, also a *Mashacalí* tribe, lived south of the Jequitinhonha River.

According to Loukotka (1932 c, p. 22), the *Patashó* (*Patachó*, *Pataxó*) formed by themselves an isolated linguistic family. They were found on the headwaters of the Porto Seguro and the Jucurucú Rivers, and between the Rio Prado and Rio das Contas. Some groups of this tribe lived in the vicinity of Alcobaça, Prado, Comechatyba, and Trancozo. In 1938, 16 *Patashó* still remained in the Paraguaçú Reservation, between the Cachoeira and Prado Rivers, southeast of the State of Bahía.

Loukotka, 1931 c, p. 24) classifies the *Malalí* in the *Mashacalí* linguistic family, but Nimuendajú considers their language as forming an isolated linguistic family. Formerly their territory was much larger than that in which they were found in the last century. Harassed by the *Botocudo*, they placed themselves under the protection of the Portuguese, who settled them in a little village, Porto de Santa Cruz, on the Sussuhy River, a northern tributary of the Rio Doce, and in the village of San Antonio, near Passanha. Previously, they lived between the Araçuahí and Mucurí Rivers. In 1787 the *Malalí* numbered about 500; in 1862 there were only 30 left.

CULTURE

SUBSISTENCE ACTIVITIES

Farming.—All these tribes except the *Patashó* seem to have practiced agriculture before they established permanent contact with the Whites. When they were described for the first time in the beginning of the 19th century, they all raised maize, beans, sweet potatoes, and manioc. Not all the *Mashacalí* groups, however, planted manioc; those who lived near São Miguel grew mainly sweet potatoes and paid little attention to their fields. Even in recent years the *Mashacalí* planted mostly maize and sweet potatoes, but, significantly, neither manioc nor tobacco nor cotton. On the other hand, manioc and cotton are listed by Wied-Neuwied (1820–21, 1:376) among the plants cultivated by the *Mashacalí* of the Rio Prado.[1]

Among the *Macuní*, men sowed the maize, while women planted the sweet potatoes, which they dug out with a digging stick. Like many incipient farmers, the *Macuní* rarely waited for the maize to ripen before harvesting it.

Fishing.—The acculturated *Mashacalí* of São Miguel caught fish in rectangular enclosures with sliding doors into which the fish were lured by wasp larvae or other bait. As a rule, fishing played a small part in the economy of all these tribes. Hunting and collecting, however, were important.

Food preparation.—The *Patashó* smoked the game on a rectangular babracot. The *Macuní* boiled meat with manioc flour.

HOUSES

The original hut of the *Patashó*, *Mashacalí*, and *Macuní* consisted of a dome-shaped framework made of branches stuck in the ground and bent inward. It was thatched with palm fronds (Wied-Neuwied, 1820–21, p. 286). The *Monoshó* may have had large communal houses, covered with palm leaves and pieces of bark (Saint-Hilaire, 1930–51).

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[1] The *Malalí* planted jacatupe (Papilionaceae), the starchy tubers of which were eaten roasted or boiled (Saint-Hilaire, 1830–51, 1:423).

The *Macuní*, *Monoshó*, *Pañame*, and *Mashacalí* slept on bedsteads—probably a late acquisition from Brazilian Mestizos. The *Mashacalí*, however, knew how to make hammocks.

DRESS AND ORNAMENTS

Among the *Mashacalí*, *Patashó*, and *Malalí*, and probably among all the other groups, both sexes went naked. The men tied the foreskin of the penis with a creeper. The *Mashacalí*, *Patashó*, and *Macuní* wore thin sticks or reeds in the perforated lower lip and in their ear lobes, but these ornaments were discarded soon after their contact with the Neo-Brazilians. The *Macuní* wore arm bands made of the tubular cocoons of a larva (Saint-Hilaire, 1830–51, 2:62). The literature on these Indians makes no reference to other ornaments.

Most of these Indians cropped their hair above the eyebrows and along the nape of the neck. Some *Mashacalí* and *Patashó* shaved their head, leaving only one tuft of hair in front and another behind. The *Macuní* combed their long hair with a stick sharpened at one end and somewhat flattened at the other (Saint-Hilaire, 1930–51, 2:55).

MANUFACTURES

Strings and nets.—The *Macuní* made strings and threads of fibers obtained by scratching the inner bark of the embauba tree (*Cecropia* sp.) with a shell. They twisted the fibers on the thigh and with the threads made carrying nets. The *Mashacalí* and *Patashó* stored most of their property in netted bags, probably of the same type as those used by the *Botocudo* and other tribes of the area.[2] The *Mashacalí* women seen by Saint-Hilaire (1830–51, 1:212) spun cotton to make hammocks and bags.

Pottery.—The *Mashacalí* and *Macuní* women made plain small globular pots using a black clay.

Weapons.—The ancient *Mashacalí* bow (pl. 105, *c*), like that of the *Camacan*, was characterized by a longitudinal groove along the outer side in which the archer placed a spare arrow when shooting. Both ends of the bow were notched to hold the string. *Patashó* bows, made of ayri (*Astrocaryum ayri*) or páo d'arco (*Tabebuia impetigianosa*), were very long, some measuring more than 8 feet 9 inches (2.55 m.).

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[2] "Quand les femmes [*Macuní*] veulent faire le filet, elles attachment leur ouvrage sur leur cuisse par le moyen d'un cordon et la ficelle qu'elles emploient, mise en écheveau leur tient lieu de navette" (Saint-Hilaire, 1830–51, 2:53).

The arrows (pl. 105, *d*) of these various tribes were of the usual eastern Brazilian type ("arched feathering"), except that on *Mashacalí* arrows, the feathering was at some distance from the butt.

SOCIAL AND POLITICAL ORGANIZATION

During Nimuendajú's brief visit to the *Mashacalí* in 1938–39 he found no indications of moieties. At that time most families had individual huts, and residence was predominantly patrilocal. Parallel cousins are classed as siblings and may not marry; whereas cross-cousin marriages are allowed and possibly preferred. There was evidence of the levirate, as well as of sororal polygyny—the only form of plural marriage.

The *Malalí* had a council composed of the most prominent warriors, who met in a special house to discuss any collective undertaking (Saint-Hilaire, 1830–51, 1:430).

LIFE CYCLE

Childbirth.—*Macuní* women bore children in the forest attended by old women. They are said to have wound around the waist a creeper which they tied to two tree branches in the hope of facilitating delivery. Mothers suspended the navel cord around the neck of the baby until it was entirely dry.

Puberty.—Some distance from each *Mashacalí* settlement there is a men's house; it is strictly tabooed to women and is open to uninitiated boys only before nightfall. Here centers the spirit cult. Souls of the dead, who reside in the sky, appear to male sleepers in their dreams. Boys undergo a lengthy graduated initiation. Every night during this period boys receive singing lessons in the men's house. Piercing sounds on a whistle summon the dead. Sometimes the inmates disguise their voices to make the uninitiated believe in the presence of spirits.

The *Macuní* celebrated the coming of age of girls with dances. The marriage ceremony consisted only in the formal acceptance by the bride's father of some game presented by the bridegroom.

Death observances.—The *Macuní* buried children in the huts, adults in the bush. They made a fire on the grave, on which they also deposited food. Sometimes they erected a post on the grave or built a miniature hut.

The *Mashacalí* interred corpses in a squatting position. There is no evidence of secondary burial. Dead people sometimes were believed to turn into jaguars.

ESTHETIC AND RECREATIONAL ACTIVITIES

Musical instruments.—The only musical instruments known to have been used by the Indians of this group are gourd rattles, bamboo stamping tubes, and whistles.

Macuní songs recounted long enumerations of game animals or trifling incidents of daily life.

Amusements.—*Mashacalí* amusements included a game with shuttlecocks of maize-husk balls. Some boys made cat's cradles, which were produced with the help of the teeth.

Intoxicants.—The *Malalí* provoked an ecstatic sleep with pleasant visions by swallowing dry bixo da taquara (*Cossus* or *Hepiale*). The fat of this grub, which bores into the bamboo, is a substantial food and a delicacy, but the digestive tract has the singular property of inducing a trance, and the head is a deadly poison. Powdered bixo da taquara was put on wounds (Saint-Hilaire, 1830–51, 1:432–433).

RELIGION

The only data on religion for the tribes of this stock are those obtained by Nimuendajú in 1938–39 among the last surviving *Mashacalí*.

Two types of sacred objects—masquerade costumes and bull-roarers—were linked with the initiation rites. The disguise consisted of a coarse bast fringe suspended from a rope on the wearer's head, the fringe completely hiding the masquerader, who carried a 6-foot switch. All the costumes were stored in the men's house and were taboo to the uninitiated, who were told that the dead appear in this apparel.

The use of these disguises is restricted to a special season, during which bull-roarers—dubbed "men," "women," and "boys," according to their size—are wielded by those privileged to do so. The sound is interpreted to outsiders as emanating from the spirits, and newly initiated boys are forbidden on pain of corporal punishment to divulge the secret.

Long after the close of the mummers' season, a sacred post[3] about 18 feet (5.5 m.) high is erected in front of the men's house in the dance plaza, which is not taboo to women. Men dance around it while the souls of the dead supposedly descend from the sky via the post.

Though there are some suggestions of a Sun and Moon myth, a solar or lunar cult is not evident.

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[3] This post is described by Pohl (1832–37, 2:447). It was decorated with figures painted with red earth.

THE CAMACAN LINGUISTIC FAMILY

By Alfred Métraux and Curt Nimuendajú

The *Camacan*, *Cutashó* (*Cutaxó*), *Catathoy*, *Masacará*, and *Meniän* spoke related dialects which belong to an isolated linguistic family. Formerly, they were included in the *Ge* family, but Loukotka (1932) and Nimuendajú consider them to be a new and independent family. Since the *Camacan* is the best-known tribe of the subgroup, statements not otherwise qualified apply to it (map 1, *No. 17*; map 7).

TRIBAL DIVISIONS AND HISTORY

Camacan (*Camacã*, *Mongoyó*, *Monshoko*, *Ezeshio*).—The *Camacan* proper remained for many years hostile to the Portuguese and fought tenaciously against them until 1806. At the beginning of the last century, they lived in six or seven villages somewhat to the north of the Rio Pardo (Patipe River) (lat. 15° S., long. 41° W.) (Ayres de Cazal, 1845, 2:90).

In 1817 the *Camacan* who were settled at Jiboya, near Arrayal da Conquista in the State of Bahía, were visited by Maximilian Wied-Neuwied (1820–21, 2: 211–214). His short description of their culture is still one of our best sources on these Indians. At that time the *Camacan* lived in small "aldeas" under the rule of "directors" appointed by the government. They were mistreated and exploited by the colonists and their native culture was breaking down. According to Wied-Neuwied, their former territory was bounded on the west by longitude 40° W., on the north by the Rio das Contas, and on the northeast by the Gavião River, on the southwest by the towns of Ciboia and F. B. da Vareda, and on the south by the Rio Pardo; that is to say, it covered the whole basin of the Rio dos Ilheos up to its headwaters and up to the mountains of Itaraca. None of their groups reached the sea.

In 1819 Spix and Martius (1823–31, 2: pp. 690–699) spent a few days with a group of *Camacan* settled at Villa de S. Pedro de Alcantara, under the care of a Capuchin missionary. They were told the *Camacan* had six villages in the forests along the Gravatá River in the District of Minas Novas, but that the bulk of the tribe inhabited the region between the Rio da Cachoeira and the Grugunhy River, a tributary of the Rio das Contas. They heard of the group established near Arrayal da Conquista in the Serra do Mundo Novo, and of another near Ferradas.

The French traveler Douville saw these Indians in 1833–34 on the Itahipe River and on Rio dos Ilheos.

In 1938 Nimuendajú found 11 *Camacan* on a reservation shared with remnants of other tribes. The area allotted to to the several groups was at about longitude 40° W., between the Rio da Cachoeira and the Rio Pardo.

Catathoy, Cutashó, Masacara, and Meniän.—The *Catathoy* lived on the northwestern borders of the State of Porto Seguro; the *Cutashó* on the northern slopes of the Aimorés range, south of the Rio dos Ilheos and north of Rio Pardo. The *Masacará* dwelt near the São Francisco River, at Joazeiro. The *Meniän* (*Menien, Menieng*) were a group of *Camacan* Indians who formerly lived on the upper Rio Grande de Belmonte. They were driven out of their territory by the Paulistas and sought refuge in the town of Villa de Belmonte, where they soon merged with the local population. In 1817, although they hardly remembered their native language, they still retained considerable skill in making mats, baskets, and nets. (See Wied-Neuwied, 1820–21, 1: 317–318.)

CULTURE

SUBSISTENCE ACTIVITIES

The *Camacan* usually opened clearings on hilltops, where they cultivated sweet potatoes, beans, sweet manioc, gourds, watermelons, yams, maize, cotton, cashews, papayas, bananas, oranges, and pineapples. They supplemented their diet by hunting, fishing, gathering considerable honey, and collecting wild fruits. A community in want would visit another village, where they helped exhaust the resources of the inhabitants. Crops belonged to the planters, but bananas, after a single harvest by the owner, could be plucked by anyone.

The dog was the only domesticated animal.

HOUSES

There were large communal houses accommodating as many as 20 families, each having its own sleeping platform, covered with fibers.

DRESS AND ORNAMENTS

Originally, the men wore only a penis sheath of leaves. After European contact, women, formerly completely naked, adopted first a bark belt, later a string with fringes in front and behind (pl. 112, *a*), and, finally, a woven loincloth. Men wore necklaces of monkey teeth and tapir hoofs. The only described specimens of feather ornaments were showy: a feather headdress built on a net with a crown of long tail feathers on the top. Men passed feathers through the perforated lobes of their ears.

The *Camacan* tied a cotton string under the knees and around the ankles of babies in order to give an elegant shape to their legs.

They carefully depilated the face and body. Chiefs wore a tonsure; most other men had their hair clipped around the neck or let it fall over the shoulders.

They painted themselves with urucú, genipa, and catua, a pigment extracted from the wood of *Broussonetia tinctoria* and combined with castor oil or grease. Men's favorite patterns were vertical and horizontal stripes on the body; women preferred half circles around their eyes and on their breasts. Both sexes also smeared themselves with urucú leaving only the head, hands, and feet unpainted. A favorite *Cutashó* motif was a circle with diverging rays like a "sun."

MANUFACTURES

Basketry.—There is no mention of basketry among the *Camacan.*

Weaving.—Women were expert at spinning 4-ply cotton strings, which they laced (meshed without knots) or netted (meshed with knots) into beautiful nets with alternating yellow or red stripes. The loom for the nets is described as an arched branch stuck into the ground and crossed by a horizontal stick corresponding to the lower edge of the fabric.

The *Camacan* wove on a vertical loom (pl. 112, *b*). The patterns on their cloth were obtained by dyeing the threads with genipa, urucú, and with a yellow wood (*Chlorophora tinctoria*).

Pottery.—Within the tribal territory, Nimuendajú found sherds of some 20 large spherical vessels without either a standing base or a special rim. At least the lower half had been built up of a lump of clay, the top being coiled, with rows of fingernail impressions. Painting and plastic decoration were lacking. The specimens depart from *Arawak* and *Tupí* norms, but approximate in technique samples from Pernambuco tribes.

Weapons.—The bow, made of paraüna wood, like that of the *Patashó*, was characterized by a longitudinal groove along the outer side; it measured from 7 to 8 feet (2.1 to 2.4 m.), but was shorter than that of the *Patashó* (pl. 112, c).

Arrowheads fell into three usual classes, being tipped with a bamboo knife, a sharpened brauna rod, or—for hunting birds—with a bulbous root. Feathering of the arched (eastern Brasilian) type, was placed at some distance from the butt. War arrows are said to have been poisoned with the sap of a creeper (Spix and Martius, 1823–31, 2: 694).

LIFE CYCLE

Birth and childhood.—At her first childbirth, a woman was helped by an old woman, who placed her in a hole in the ground. After the delivery, the husband kept to his bed and refrained from eating tapir, peccary, and monkey flesh, subsisting on bush yam and birds, while his wife carried on her usual work. Children were nursed until the age of 3 or 4.

Parents never ordered their offspring about, but consulted their wishes. As soon as possible children made themselves independent of their families, planting crops and cooking for themselves at an early age. After killing game, they shared it with their parents as well as with the other members of the community.

Marriage.—Polygyny was tolerated by the *Camacan*, but to avoid jealousy among the bachelors, men generally had only one wife. However, couples separated very easily.

A young man wishing to marry had to ask the permission of the head of his group, who, on consenting, would "buy" the girl if she belonged to another community. A chief had to take as his wife another chief's daughter. The marriage ceremony was celebrated by a banquet and a drinking bout, during which the guests made presents to the newly wedded pair.

In case of divorce the man had to provide food for his children even when his former wife remarried.

Death observances.—A dead man, duly painted and with all his feather ornaments on, was put, in a flexed position, in a grave 4 to 5 feet (1.2 to 1.5 m.) deep. His weapons and a jar full of beer were placed with him. When the grave was filled with earth, a fire was built on top of it, and the site then was covered with palm leaves and branches. A pot, the size of which indicated the age and sex of the deceased, was also placed on the grave. The relatives came now and then to leave an offering of meat. They interpreted the disappearance of the meat as a sign that the offering had been well received by the dead and henceforth tabooed the animal whose meat had been accepted by the soul (Spix and Martius, 1823–31, 2:695). The sepulcher was later opened, and the bones were taken home and spread on a platform, painted, and placed in a funeral urn, which was buried in a shallow pit. The transfer of bones was celebrated by a great festival.

The bodies of sorcerers were burned.

Funeral laments were uttered three time a day. A widower could remarry soon after the funeral, but a widow had to wait for a longer period. The dead were worshiped at the beginning of the rainy season during a feast in their honor. According to a second-hand account of Nimuendajú's *Camacan* informant, the souls of the dead, visible only to old men, would enter the house to dance and join in a carousal at night.

A dead man who had a grudge against the living, would return in the guise of a jaguar to take revenge. At a mother's request, the souls of good people were reincarnated in newly born babies. Otherwise they went to a big hut in the sky, where they were assured of an abundant supply of food. The evil ones also flew to the sky, where their main pleasure was to cause storms.

The *Cutashó* buried the dead, together with their property, in their dwellings. The relatives celebrated a funeral meal and set fire to the house. The souls were supposed to go into the earth.

ESTHETIC AND RECREATIONAL ACTIVITIES

Musical instruments.—Dancers shook strings of deer, peccary, and tapir hoofs on a cord. They also marked the rhythm of their dances with a gourd rattle. They played the musical bow and scraped a grooved piece of gourd with a stick.

Dances.—Men danced in circles to the accompaniment of songs and gourd rattles. They were followed by pairs of women who held each other by the waist (pl. 111).

Alcoholic beverages and intoxicants.—A drink was brewed of maize or of sweet potatoes, or, occasionally, of papayas or honey. The maize or sweet potatoes were partly chewed and then sprinkled with hot water. The mass then was poured into a large trough dug into the bulky trunk of the bottle-tree (barrigudo), which was half buried in the ground so that the liquid could be warmed without burning the bark.

Drinking bouts and log racing.—Drinking sprees were sometimes combined with communal hunts to provide an ample supply of meat. On such occasions there might also be log races,[1] run by two teams, wadyḗ and wanā́, distinguished by their decorative paint. As a child grew up, its mother would assign it to one or the other team, every *Camacan* individual thus acquiring membership. These "moieties" were not exogamous since Nimuendajú's female informant's parents were both wadyḗ; and membership was not fixed by heredity since she and her brother were both wanā́.

MYTHOLOGY AND FOLKLORE

One of the principal myths revolves about Sun and Moon, the latter figuring as the foolish, mischief-making brother, whom Sun several times restores to life. In one episode Sun assumes the shape of a capybara, thus getting the villagers to shoot at him, whereby he replenishes his depleted stock of arrows. Cataclysmological ideas include a deluge, a conflagration, and a jaguar's attack on the moon during a lunar eclipse. The Star Wife story culminates in the husband's being carried back to earth by vultures. A remarkable parallel to the North American Bloodclot myth is the story of the overpowering of a wrestling ogre by a hero who throws his opponent on the blade prepared for unsuspecting wayfarers; the conqueror destroys other fiends but anticlimactically dies at the hands of a brother of one of his adversaries. The folklore abounds in other fantastic elements, such as tribes of strong dwarfs, and lice-eaters. Animal characters are frequent, among them are the jaguar, the tapir, and various birds.

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[1] "Often on these solemn occasions, when the night has been spent dancing, another game takes place. In order to display their strength young people run to the forest, cut a large cylindrical limb of a barrigudo (*Bombax* sp.) tree which is very heavy when full of sap. They plant a stick in each end in order to carry it more easily. The strongest of the group takes this piece of wood, places it on his shoulder and with this load races home. The others follow him and try to take the log away from him. The struggle lasts until they arrive at the place where the girls are gathered to compliment them. Sometimes the log is so heavy that one of the champions gets ill." (Wied-Neuwied, 1820–21, 2 : 221.)

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THE "TAPUYA"

By Robert H. Lowie

Tapuya (*Tapuyo*, *Tapuia*, *Tapüja*, *Tapuüa*, *Tapoyer*) (map 1, *No. 18*; map 7) is a *Tupí* term requiring close scrutiny. The earlier writers on eastern Brazil frequently applied it to any Indians obviously unrelated to the *Tupí.* Soares de Souza (1851) even extends it to people between the Rio Grande do Sul and the Río de la Plata, who were probably southern *Tupí* and certainly not identical with the tribes the same author describes as natives of Bahía (Schuller, 1912). According to Magalhães de Gandavo (1922), the *Tapuya* on the Maranhão River claimed affinity with the *Aimoré;* and Saint-Hilaire (1830–51, 1:149) heard the *Botocudo* referred to as "*Tapuyo.*"

In his basic classification, Martius (1867, 1:283, 345, 778) interprets the word to mean either "enemies" or "Westerners." He wavers in his identification, virtually identifying the "*Tapuya*" with the *Ge* family, then treating them as at least mainly *Ge*, and again regarding them as distinct, but mixed with *Ge.* Our earliest authority, Fernão Cardim (1939), writing in 1584, gives a roster of 76 "*Tapuia*" tribes, but indicates great diversity of speech and custom among them. In 1587 Soares de Souza (1851) distinguishes among non-*Tupí* the *Ubirajara* in the sertão of Bahía beyond the São Francisco River; the *Tapuia* of the *Maracá* tribe (whom Pompeu Sobrinho, 1939, considers *Cariri*); and other *Tapuia* hostile to the *Maracá.* Vasconcellos (1865) recognizes nearly a hundred diverse *Tapuya* tongues; and though this need not be taken literally and, in any case, would not necessarily imply many unrelated families, the reader of the early writers gets a cumulative impression of differentiation within northeastern Brazil, the area in which the overwhelming majority of *Tapuya* are localized. The older sources commonly include *Cariri* under the head of *Tapuya.* Apart from the *Ge*, there are demonstrably six unrelated linguistic families within the area; viz, the *Fulnio* (Pompeu Sobrinho, 1935 b), *Shucurú*, *Pancararú*, Indians of Serra Negra, Pernambuco, *Natú*, *Shocó*, and*Tushá.* It thus seems hopeless to assign a definite linguistic meaning to the term "*Tapuya.*"

It certainly can lead to nothing but confusion if ethnographic and linguistic considerations are mixed. Thus, the *Tremembé* (*Tere-*

membé), who lived in the country of the Acarahú River, extending as far as the Serra Grande, were excellent runners and swimmers, made anchor-axes, and deposited them on the corpse of a slain enemy.

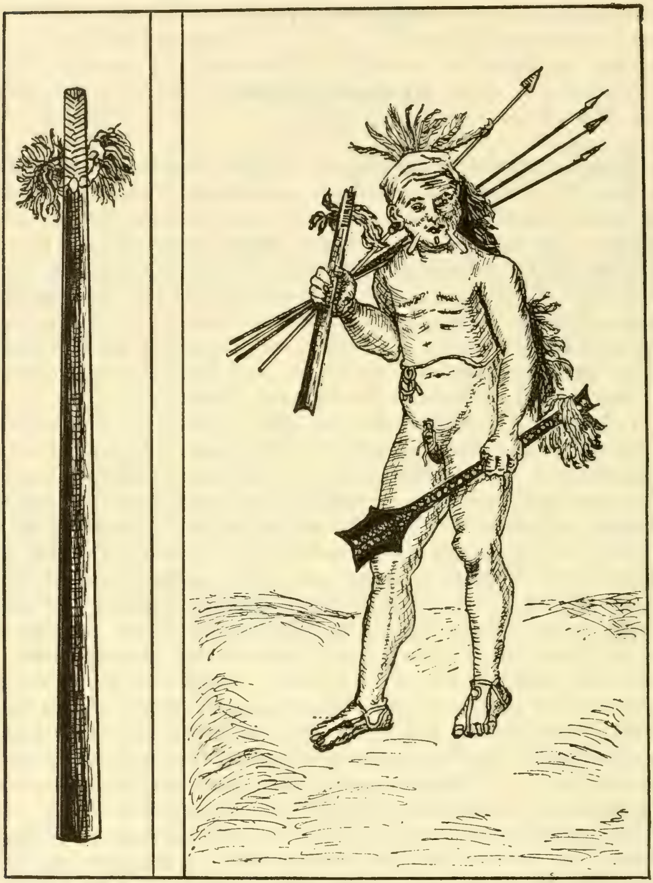

FIGURE 69.—*Tapuya* man and spear thrower. (Redrawn from Bahnson, 1889, pl. 13.)

These features ally them with various *Ge* tribes, but until the *Tremembé* speech is proved akin to *Ge*, such homologues prove nothing but cultural connection.

But, ethnographically, there is hardly more warrant for considering all *Tapuya* in one category. Of Cardim's (1939) tribes, the

Napara, were farmers, the *Guamure* lacked any form of agriculture, the *Camucuyara* were cannibals, the *Curupehe* merely took heads for trophies, the *Guayatún* "dwell in houses," and the *Curuphe* "have no houses and are like gypsies." Specifically, there is no warrant for lumping the *Tapuya* together as representatives of a particularly rude stage, as has been customary. Pompeu Sobrinho (1939) has rightly pointed out that, archeologically, their habitat in northeastern Brazil is characterized by abundant pottery and polished stone implements and that a good many of them were incipient farmers. Indeed, when such authors as Soares de Souza (1851) declare that a tribe like the *Maracá* fails to cultivate the soil, the statement is at once qualified: they neither plant manioc nor eat vegetables except those their women plant. Still more definitely it is stated that a hostile fellow-*Tapuya* group plants no manioc nor tills the soil except to raise maize and other "legumes."

> Não costuma este gentio plantar mandioca, nem fazer lavouras senão de milho e outros legumes; porque não tem ferramentas com que roçar o mato e cavar a terra, e por falta d'ella quebram o mato pequeno as mãos, e ás arvores grandes põem fogo ao pé d'onde está lavrando até que as derruba, e cavam a terra com páos agudos, para plantarem suas sementeiras, e o mais do tempo se mantém com frutas silvestres e com caça, a que são muito afeiçoados. [Soares de Souza, 1851, p. 352.] .

That these maize-growing *Tapuya* were relatively advanced appears from the further statement that they lived in well-walled, strongly stockaded settlements and, like the *Tupinamba*, slept in hammocks. Their procuring salt by burning saltpeter and extracting the ashes may be taken as further evidence of sophistication. In any case, Soares de Souza (1851) is keenly aware of the differences among the *Tapuya* in setting off those nearer the São Francisco River as more rustic (agrestes) and using caves (furnas) for houses.

A plausible interpretation of early wholesale denials of *Tapuya* agriculture is that the writers were merely contrasting the comparatively intensive farming of the *Tupí*, centering in manioc, with the cruder cultivation of other peoples who grew no manioc, but did plant other species, though remaining largely dependent on wild vegetable fare and on the chase. Only in some such way can we reconcile the evidence in Barlaeus, who in one passage describes his *Tapuya* as rovers subsisting on wild fruits, game, fish, and honey, and subsequently states that nothing is sown without priestly consecration, and that a prophet will predict a good maize crop (Barlaeus, 1659, pp. 697, 706 ff.)

That the "*Tapuya*" of northeastern Brazil, at all events were far more stable than might be assumed from certain accounts seems further indicated by the abundant remains of pottery all over their territory (Pompeu Sobrinho, 1939, p. 233). Finally, the supposed lack of hammocks among the *Tapuya*, which was still assumed as general by

Ehrenreich (1894, pp. 81–90) and others, is not borne out by early sources, as Schuller (1912, 21: 78–98) correctly indicates. Soares de Souza (1851, p. 352) and Herckman (*in* Wätjen, 1921, pp. 254–260; *in* Pompeu Sobrinho, 1934, p. 22) are quite definite on this point.

The inevitable conclusion is that "*Tapuya*" is a blanket term like "Digger Indian" or "Siwash" in North America. No good purpose is served by considering them as a linguistic or ethnic unit. Ethnographically, there were undoubtedly "*Tapuya*" tribes with striking parallels to *Ge* traits, such as the sportive manipulation of heavy logs and the caplike haircut. But the *Ge* themselves are now known to be anything but uniform; and of the specific features found among the *Tarairiu*, the best known *Tapuya* group, some point in quite different directions. Thus, the endocannibalistic disposal of corpses reminds us of the extinct *Tapajó*, and the ritual with the chief's rock-container has a decidedly *Tupinamba* flavor. Analysis thus shows features of wide tropical distribution; some apparently restricted to the *Tarairiu;* still others suggest influences of diverse origin. There is no "*Tapuya*" culture: except in quoting old writers on otherwise undefined groups so designated, the term should be eliminated from scientific usage. (See *The Tarairiu*, p. 563.)

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THE CARIRI

By Robert H. Lowie

TRIBAL DIVISIONS AND HISTORY

The *Cariri* form a distinct linguistic family comprising the *Dzubukua*, *Kipea*, *Pedra Branca*, and *Sapuya* dialects, the last being considered the most aberrant. At the time of the Portuguese occupation they resided in the interior of Brazil, and their documented habitats were as follows (lat. 8° S., long. 40° W.):

(1) Serra dos Carirys Velhos (*Kipea Cariri*), 17th century.
(2) Pilar (where *Kipea* were gathered and their descendants remained until the beginning of the 19th century).
(3) Missão Velha, Missão Nova, Barbalha, Crato, and Milagres (*Cariri Novos*), 1670. The Crato *Cariri* were removed to the capital, Fortaleza, in 1780; in Milagres remnants persisted as late as 1876.
(4) Sources of the Itahim River. These *Cariri* (*Quiriri*) were warred against prior to 1701 and are not mentioned subsequently.
(5) Islands of the São Francisco River (*Dzuzukua Cariri*). Pambú Island, 1702; Oacarapá Island, 1702; Cavallo, Iraquá, and Inhamum Islands, 1746.
(6) Curral dos Bois, 1759.
(7) Collegio (mixed with *Wakóna* and *Carapotó*), until the beginning of the 19th century.
(8) Massacará (jointly with *Catrimbi*), 1759.
(9) Sacco dos Morcegos, 1759.
(10) Canna Braba, 1759.
(11) Jurú, 1759.
(12) Natuba, 1759.
(13) Aldea do Rio Real, 1759.
(14) Aramary, 1759.
(15) Pedra Branca (*Camurú Cariri*), 1740–1865; remnants at Paraguaçu Reservation.
(16) Caranguejo (*Sapuya Cariri*), 1740 until after 1818.

Of these groups, the *Camurú* and *Sapuya* were the only ones west of Bahía. They were not transplanted there from the north, but prior to their being placed in settlements by the Whites, occupied the mountains of the same region. The range of the family is indicated by the fact that these southernmost members had for their enemies the *Botocudo*-speaking *Guerens* of the 17th century, and in the 18th century the linguistically undefined *Payayá*, whereas congeners lived north of the Parahyba River.

Reduced in numbers through Portuguese and Dutch contacts, *Cariri* Indians were settled by the Jesuits in aldeas west of Bahía. The *Camurú* and the *Sapuya* were visited in 1818 by Martius (1867, 1: 347 ff.), who still found about 600 survivors. By 1891 the *Cariri* were said to have become extinct. This statement now requires slight modification. The *Camurú*, ousted from their aldea in about 1865, were killed off or scattered, but remnants reunited at Santa Roza on an affluent of the Rio da Contas. There they joined some *Tupinaki* from near Porto Seguro and a few *Tupinamba* from Batateira, near Areas. Once more driven out by Neo-Brazilian pressure, the mixed group gathered at the headwaters of the Gongogy River, near São Bento, whence they ultimately sought refuge on the Paraguaçu Reservation, founded in 1927 between the Caxoeira and Pardo Rivers. Among the 123 natives of various extraction there in 1938 Nimuendajú (mss.) found a handful of *Camurú* from whom a few isolated data could be secured. One old *Camurú* woman was still making pottery for her own use.

CULTURE

The *Cariri* were on a higher level of culture than most eastern Brazilians. They grew manioc, maize, beans, and cotton; slept in hammocks; made pottery molded at the base and coiled above, corresponding to the *Shucurú* ware of Cimbres, Pernambuco; and are even credited with having a simple loom. The houses were of the wattle-and-daub type, with roofing of palm fronds or other foliage. These Indians were not cannibals. Their weapons included bows, arrows, and spears, but not war clubs. In the last quarter of the 17th century they went nude and made only occasional use of labrets and earplugs; genipa and urucú served for decoration.

According to Martin de Nantes (1706), the women generally henpecked their husbands. Plurality of wives was permitted and divorce was easy. The chief exercised real authority only in warfare, but might derive power from the number of kinsmen supporting him. Except in cases of extreme old age, death was imputed to sorcery and the relatives would kill the evildoer. The chief of Itapoa was killed and burned for sorcery by his own people. Importance was attached to bird omens. Apparently there were puberty rites for both sexes. Girls had their arms scarified in order to become good spinners, and boys correspondingly underwent mortification of the flesh in a 10-day festival. In order to make them good hunters and fishermen, their elders would burn fish and animal bones, drinking the ashes with the sap of some bitter herbs, scarifying the novices with teeth, and rubbing ashes into the skin. The lads were obliged to rise very early to hunt and had to present their gamebag to the older people, getting for their fare only a thin broth of maize or cassava. In consequence they grew very thin by the end of the period, which was further characterized by nocturnal singing and dancing.

After delivery a woman ate no meat, fish, eggs, or meat broth, being restricted to a vegetable fare until teething set in, lest the child die or lack teeth. Doctors treated their patients with tobacco smoke and chants.

In 1938 Nimuendajú (mss.) gleaned a few facts about the ancient Yurema cult. An old master of ceremonies, wielding a dance rattle decorated with a feather mosaic, would serve a bowlful of the infusion made from yurema roots to all celebrants, who would then see glorious visions of the spirit land, with flowers and birds. They might catch a glimpse of the clashing rocks that destroy souls of the dead journeying to their goal, or see the Thunderbird shooting lightning from a huge tuft on his head and producing claps of thunder by running about.

Mythology.—The two myths recorded by Martin de Nantes (1706) are significant. In one of them Touppart, "God" (cf. *Tupí* Tupan), sends an old friend to the earth to live with the Indians, who address him as "Grandfather." One day they go to hunt, leaving their children with Grandfather, who transforms his wards into peccaries. After sending the parents on another hunt, he takes the transformed children to the sky up a tree, which he orders the ants to cut down. The *Cariri* vainly try to set the tree up again so they can climb down. Finally, they make a rope of their girdles, but it proves too short; they fall down to the ground and injure their bones. Nevertheless, they beg Grandfather to come back to earth, but instead he sends them Badze (tobacco), to which they thenceforth make offerings.

According to the other tale, the *Cariri* had but a single woman among them and begged Grandfather for more. He sent them hunting, made the woman delouse him, and caused her to die. He then cut her up into bits corresponding to the number of men. When they came back, he ordered them each to wrap his piece up in cotton and suspend it in his hut. He sent them hunting once more and, when they returned, the fragments had turned into women, who were already preparing food for the men.[1]

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Adam, 1897; Bernard de Nantes, 1896 (facsimile of Lisbon ed., 1709); Goeje, 1934; Martin de Nantes, 1706; Martius, 1867; Nimuendajú, mss.; Pompeu Sobrinho, 1928.

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[1] The same explanation of the origin of women was recorded by Nimuendajú among the *Sherente*.

THE PANCARARÚ

By Robert H. Lowie

The *Pancararú* (*Pankarú*, *Pancarú*) is an eastern Brazilian tribe sometimes classed as of the *Cariri* family, but at the present stage of knowledge it should be regarded as isolated. They have been found in recent years near the Paulo Afonso Falls on the north bank of the São Francisco River, at Brejo dos Padres, lat. 9°4′ S., long. 38°19′ W. Their culture, though imperfectly known, has maintained many interesting features, Carlos Estevão (1938) having witnessed the Yurema rite during the late 1930's.

According to Estevão, the intoxicant prepared from the yurema roots is tasted first by the chief. Only priests, warriors, and old women singers may attend; they kneel with bowed heads, then receive their portions, which induce fine dreams. The ceremony was formerly performed also by the *Cariri*, *Guegué*, *Acroá*, and *Pimenteira*—especially before going to war (Pereira de Alencastre, 1857, p. 31). Carlos Estevão witnessed it in recent years among the isolated *Tushá* somewhat above the *Pancarurú*, at Rodellas, on the south bank of the São Francisco River.

Estevão records a series of dances named for animals and plants (fish, bee, great anteater, parrot, and *Spondias tuberosa*). When the fruit of the *Spondias tuberosa* (imbú) appears, it is hung up between two forked sticks, to be shot at by archers; the victor gets as a prize a big liana, which is used in a tug of war. Further, there is a formal initiation into an esoteric society: the novices, about 12 years old, have to bring water, fire, and tobacco, and are pledged to secrecy on pain of being made to sleep on a bed of nettles.

Estevão photographed masqueraders carrying gourd rattles, staffs, and reed pipes. Their costume consists of a fiber headpiece and skirt, strips of cloth in the back, and feather ornamentation.

In one ritual there is mutual flagellation of men and women.

Noteworthy is the predominance of the coiling technique in basketry.

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THE TARAIRIU

By ROBERT H. LOWIE

The *Tarairiu* (*Tarairyou*, *Tarayruck*, *Tararyou*, *Tarairyouw*, *Otshucayana*), were a "*Tapuya*" people in northeastern Brazil. (See The "*Tapuya*," p. 553.) Linguistically, Ehrenreich (1894) suggested affinity with the *Ge* and, specifically, with the *Patashó* or *Koropo*, who are no longer reckoned as *Ge*. In any case, the evidence is too meager to carry conviction. Pending the discovery of new data, the *Tarairiu* may thus be conservatively treated as a distinct linguistic family, as proposed by Pompeu Sobrinho (1939, pp. 221–235).

HISTORY

The *Tarairiu* were sublitoral, living not so far inland as the *Cariri*, but back of the coast occupied by Europeans, possibly between Natal and Ceará, centering in what is now Rio Grande do Norte (lat. 6° S., long. 36° W.). In the wars between the Dutch and the Portuguese they generally aided the former. Our best primary sources are Jacob Rabbi (see Piso and Marcggravi, 1648), Elias Herckman (1639), and Roulox Baro (1651), as well as the paintings by artists in the retinue of Prince Moritz of Nassau-Siegen, governor of the Dutch possessions from 1636 until 1644. Nieuhof (1732), Barlaeus (1659), and De Laet (1644) are secondary sources. Tribal, subtribal, or horde names abound (Pompeu Sobrinho, 1939). Of the relevant groups the *Jandoin*, i. e., the horde or subtribe under the chief of that name (Janduy, Jandovi, Jandubi, Johann de Wy, Jan de Wy, Jan Duwy) was the best known. They are located by Portuguese chroniclers on the Assú, Mossoró, Apody, and Jaguaribe Rivers. Their population was set at 1,600, usually divided into two bands, presumably for economic reasons (Laet, 1644). According to Studart (1926 b), they were almost annihilated by the Portuguese in 1666. The last reference to the *Jandoin* is dated 1699, the year of a Paulista attack; and they probably became quite extinct in the war of extermination of 1721. The *Payakú* (*Pajoke*), originally on the Apody and Choró Rivers, were, ethnographically, close to the *Jandoin*, and sometimes joined them against the Portuguese. Their descendants lived in Jesuit missions in Monte Mór o Novo, Ceará, until after 1762, and in Pôrto Alegre, Rio Grande do Norte, until 1817.

CULTURE

Notwithstanding statements in the secondary sources that the *Tarairiu* were pure nomads subsisting on wild fruits, game, fish, and honey, the same authors speak of sowing, the consecration of fields, and prophecies as to the maize crop. Farming is in no way refuted by seasonal migrations, from November to January, to the seashore in search of favorite nuts not found in the interior. As a matter of fact, primary sources explicitly establish agriculture. In March and April, we learn from Rabbi (Piso and Marcggravi, 1648, p. 281 ff.), when the waters of their river had subsided, the people returned to their settlements, where they planted maize, beans, gourds, and other species (". . . serunt autem imprimis grandius milium seu Maizium, phaseolos varios et cucurbitas lagenaeformes, aliasque"). A portion of the crop was segregated for the next sowing, the rest being consumed (". . . tantum seponunt quantum ad proximam sementum sufficere putant, reliquum abliguriunt"). Roulox Baro (1651) refers to the planting of tobacco and maize.

A root, "arrohu," was made into bread: After crushing it with a stick, a native would catch the squeezed-out juice, crush the mass again until soft, then make it into round pellets, which were baked. The women chewed a certain root in preparing a spirituous beverage.

The weapons included atlatls, spears, and wooden clubs. Special interest attaches to the atlatl, described by Herckman and drawn by Eckhout as a grooved wooden board; a museum specimen in Copenhagen demonstrates this. Herckman expressly mentions bows and spear throwers in the same breath, but the former appear neither in Rabbi's nor Baro's reports nor in the illustrations drawn by Eckhout and Wagener.

Both sexes went virtually naked, the men tying the prepuce with a string, the women wearing a perineal covering of foliage supported by a girdle. One of Eckhout's paintings shows a man wearing sandals, and Rabbi speaks of youths tying their calves for festive athletic games with a pliant withy and donning footgear of the same material (". . . quidem primo uras vinciunt lento quodam vimine, è quo et calceos confectos induunt"). Further, Eckhout pictures male dancers with the caplike haircut of modern *Timbira.* The ear lobes of boys about 7 years old were pierced for the insertion of plugs, and about the same time green, black, red, or white stone pencils were put into perforations of the lower lip. Long fingernails, as well as a crownlike haircut, were a badge of distinction, but it was the "king's" prerogative to keep them long on his thumbs. Depilation of body hair was general.

Notwithstanding the alleged nomadism of the *Tarairiu*—Herckman declares that they would not stay over 72 hours in one spot—and the flimsiness of their leafy shelter, they are credited with sleeping in hammocks.

Both sexes are said to have been expert swimmers. The men were good runners and practiced wrestling, especially to show off before women. A reference to a pair of girls by Rabbi suggests that the *Canella* maidens associated with the age classes (p. 496). In the evening young men and women would dance together.

Polygyny was permitted. According to the accepted Dutch legend, Janduy had 60 children by 50 wives—though at times he had been content with 14. Only for a first wife was there a special 4- or 5-day celebration in the chief's presence, the bride and groom being painted with urucú and genipa and decorated with feathers. The suitor had to prove his worth by warlike deeds or, according to Herckman, by the carrying of heavy logs, but Rabbi and Baro describe the log performance as an athletic game of *Timbira* type. The suitor also gave his prospective father-in-law some game and honey. According to Barlaeus' (1659) obviously bowdlerized account, a nubile girl was painted red by her mother and presented to the "king," who would blow tobacco smoke on her, put a wreath on her head, and throw a dart at it; if he hit the girl, he licked off the blood in order to prolong his life. From Rabbi, copied by Nieuhof (1744, p. 135), it appears that this applied to an uncourted girl: The chief, playing a doctor's part, bade the maiden sit beside him, warmed his hands by the fireplace and stroked his body with them, then blew tobacco smoke on himself and the girl, deflowered her, and licked up whatever blood came forth. A husband refrained from intercourse during pregnancy and also, unless monogamous, during lactation. A woman went into the woods for her delivery, severing the navel cord herself and first cooking, then eating the navel cord and the afterbirth. Twice daily she would bathe with her infant. Adultery was rare; a husband might expel a faithless wife and even kill her if caught in the act.

The chief lacked coercive power and was more highly esteemed in war than in peace. However, he enjoyed various prerogatives besides those already cited, receiving a tribute of fruit and meat. His shamanistic and priestly functions included the doctoring of little boys by blowing smoke on them, and the custody of a sacred vessel enclosing rocks and fruits that no one might touch without his permission. At his accession the "priests and prophets" anointed him with balsam and crowned him with feathers. His secular duties consisted in announcing through a crier the day's undertakings, settling where the camp was to be pitched, and when it was to be broken.

When visiting friends, the *Tarairiu* saluted one another with weeping.

The shamans were consulted on public affairs and would invoke spirits in the woods, returning with the impersonator of a supernatural being, who would foretell the future; but in case of a disagreeable prophecy both the shaman and the mummer were liable to rough treatment. However, a priest's dreams were esteemed and revealed to the chief. In major prophecies, e. g., as to war, the shamans consulted the chief's vessel, first blowing tobacco smoke on it. In 1641, when the floods had destroyed the fields, the holy rocks were uncovered and six prophets interpreted the future, promising plenty of maize, honey, etc. No sowing was done before the performance of sacred rites: the priests purified the soil, and then incensed the seeds with tobacco smoke in order to enhance their fertility. The Morning Star was worshiped with chants and leaps in the morning and at a major tribal festival uniting the bands in the summer. This involved racing contests and dances.

A corpse was dissected by the priests and roasted by the old women, who bewailed their loss, and then consumed the flesh, gnawing the bones. The body of an eminent man was devoured by those of his own status. The bones were preserved for a subsequent festival, at which time they were pulverized, the powder mixed with water, and then swallowed. The hair was consumed in a similar manner.

Doctoring involved both the blowing of smoke and suction of the affected part. In treating Janduy on one occasion, the medicine men sucked, bellowed like cattle, and extracted an awl, a root, and a rock as the cause of his illness.

There was a belief in the division of souls according to the manner of death, those dying from natural causes being apparently favored. The souls were supposed to go west, assembling before a stagnant body of water, where a spirit comes in a boat to question them as to the way they died, whereupon he ferries them over to a place of good fish and honey.

Among various observances and beliefs may be mentioned the faith in omens from bird calls, laceration of the body to forestall fatigue on a journey, and the offering made to big rocks lest they bite the Indians (symplegades motif?).

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THE JEICO

By Robert H. Lowie

Jeico(s) (*Jaico*, *Jahycós*, *Jaicós*, *Jaicujú*, *Geicó*) is a practically unknown, extinct *Ge* tribe, first encountered between the Canindé and Gurgueia Rivers and along the watershed separating these from the São Francisco River (lat. 8° S., long. 44° W.) United in the aldea of N. S. das Mercês, they rapidly died out, being degenerate and racially mixed in 1855. Martius met only a few vagabonds of this group, who said they had come from the settlement of Cajueiro, Piauhy. He published a brief vocabulary (Martius, 1867, 1: 256, 279, 779; 2: 142).

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THE GUCK

By Robert H. Lowie

The *Guck* (*Coco*) is a fancifully constructed linguistic family, proposed by Martius (1867, 1: 346–361, 570, 780) on the basis of the term used for uncle, which he supposed to have once signified "human being." The family was made to include the *Cariri*, *Carib*, *Carajá*, *Mojo*, *Passé*, and various others. Martius assumed the interior of Guiana to be the homeland of this family.

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Martius, 1867.

THE FULNIO

By Alfred Mètraux

The *Fulnio* (*Carnijó*) are first mentioned under the name *Carnijó* in a document of 1758, when they lived in two villages under the Catholic priests (lat. 9° S., long. 37° W.). Little was known about them, however, until 1929 when a journalist, Mario Melo (1929), wrote a short first-hand description of the modern *Fulnio* of the district of Aguas Bellas (State of Pernambuco), near the Serra do Comonaty. Pompeu Sobrinho (1935 b) analyzed the few existing documents on their language—the *Iatê*—and concluded that *Fulnio* is an isolated tongue with no relationship to *Cariri*, with which it has been erroneously identified.

The modern *Fulnio*, mixed with Negroes and Mestizos, number about 700 persons (130 families).

The acculturated *Fulnio* preserve very little of their past culture. They live on the products of their fields and on the sale of a few basketry objects and cords of carua fibers. Children hunt birds with pellet bows and make simple traps.

During August, the *Fulnio* move their village to a circular clearing (ouricouri) where, under a sacred joazeiro tree (*Zizyphus joazeiro*), which women may not approach, the men meet to elect their chief. Perfect peace must prevail during the feast.

Puberty rites are celebrated in the clearing. That these ceremonies were complex is suggested by the names of special officers who presided over the different stages of the feast. One of the main festival events was the tolê dance, which modern *Fulnio* still perform in feather diadems and rhea-feather bracelets and belts. The chief performers are two men who dance, each with an arm over his partner's shoulder. They turn and jump to the time of a large and a small stamping tube, which they beat against the ground. Meanwhile, the spectators sing while two men shake their rattles. The dancers stop in front of two girls who follow, dancing around them. The various steps are named after animals (step of the urubú, step of the pigeon, step of the fish).

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THE TEREMEMBÉ

By Alfred Métraux

HISTORY

The Teremembé (*Tremembé*, *Tremembaiz*, *Taramembés*, *Teremembis*) have been erroneously classified in the *Tupí-Guaraní* linguistic family by Martius (1867, p. 197). Their language is unknown, but certainly differed from *Tupí*. Judging from the few data on their culture, they seemed to have belonged to the primitive tribes which occupied the Brazilian coast before the *Tupí* migrations. (Lat. 4° S., long. 40° W.)

In the 17th century, the *Teremembé* lived on the seashore from the mouth of the Gurupy River or of the Tury River in the east to the mouth of the Paranahyba River. Claude d'Abbeville (1614, fol. 189) gives the Jaguaribe or Mossoró River as their western limit. In the State of Ceará they seemed to have lived mainly along the Acaraí River and in the Serra Grande. They were bitter enemies of the *Tupinamba*, whom they attacked whenever they could ambush them. In 1674, because *Teremembé* had killed shipwrecked Portuguese sailors, the colonists led a bloody punitive expedition against them (Betendorf, 1910, pp. 316–322). At the end of the 17th century the remnants of the tribe were settled by the Jesuits in missions. At the beginning of the 19th century the *Teremembé* were almost extinct. A few of them, mixed with the local population, lived in Nossa Senhora de Conceicão d'Almofalla and in Villa de Sobral.

CULTURE

The *Teremembé* were nomad hunters and fishermen. They wandered in small groups along the coast carrying their bows and arrows, axes, gourds, and pots. They had spears tipped with shark teeth.

Like the *Canella*, they used crescentic stone axes, the famous "anchor axes" which have been found archeologically along the Brazilian coast. They employed these as battle-axes, but whenever they had killed an enemy with one they left it on the corpse. Yves d'Evreux (1864, pp. 141–142) gives some interesting data on the ceremonial manufacture of these axes. At the first appearance of the crescent moon, the *Teremembé* spent a whole night shaping these axes, not stopping until they were perfect, because they believed that if they carried them to war, they could never be defeated. While men made these axes, the women and girls stayed outside the huts singing and dancing, their faces turned toward the crescent moon.

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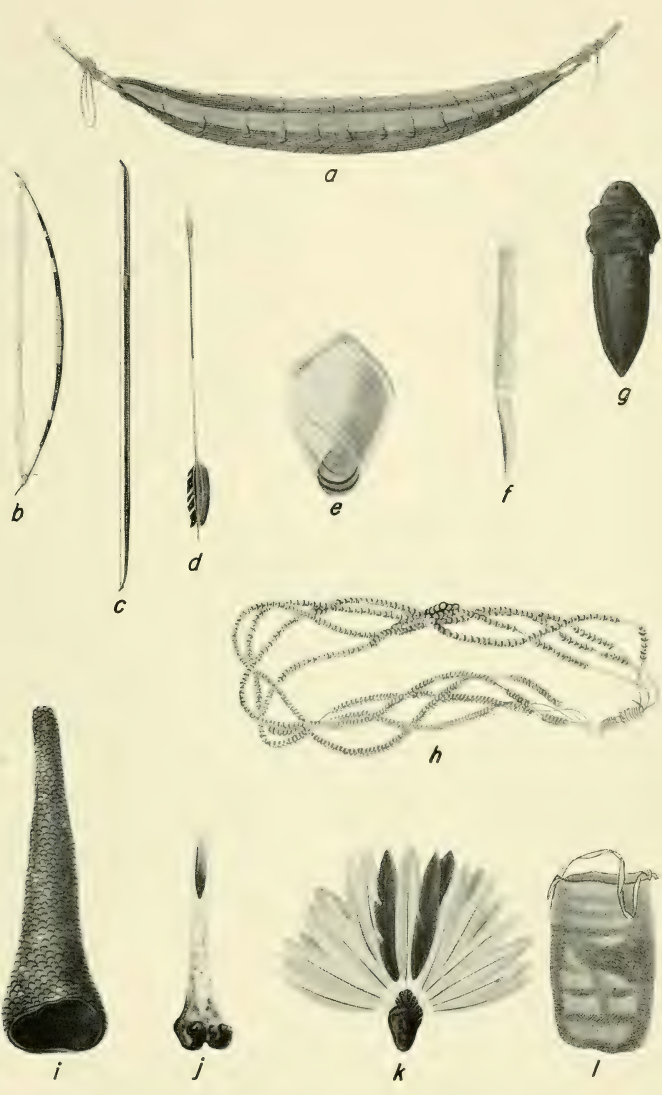

PLATE 105.—**Arms, ornaments, and utensils of the Botocudo, Purí, and Mashacalí.** *a*, *Purí* hammock; *b*, *Purí* pellet bow; *c*, *Mashacalí* bow; *d*, *Mashacalí* arrow; *e*, *Botocudo* penis sheath; *f*, *Botocudo* knife; *g*, *Botocudo* stone ax; *h*, *Botocudo* necklace of fruit shells; *i*, *Botocudo* trumpet; *j*, *Botocudo* bone awl; *k*, *Botocudo* forehead dress *l* ,*Botocudo* carrying bag. (After Wied-Neuwied ,1822, Nos. 13 14.)

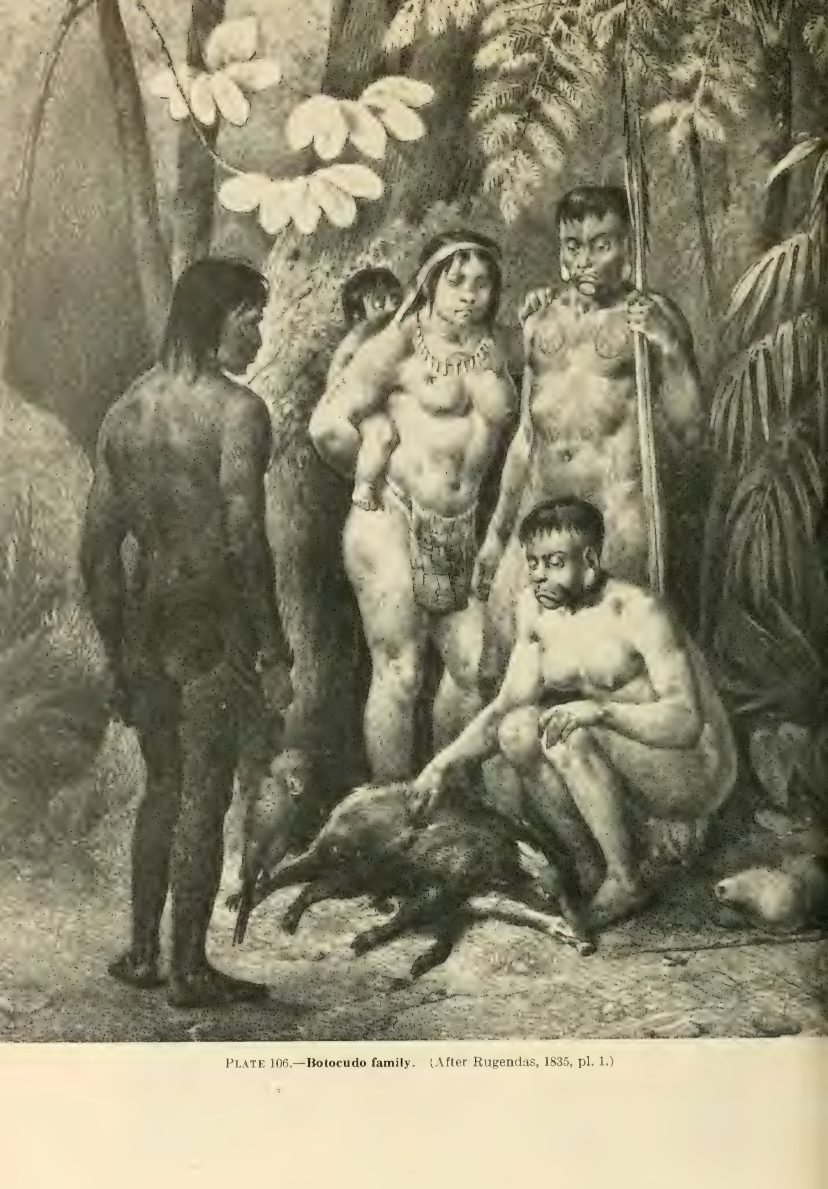

PLATE 106.—**Botocudo family.** (After Rugendas, 1835, pl. 1.)

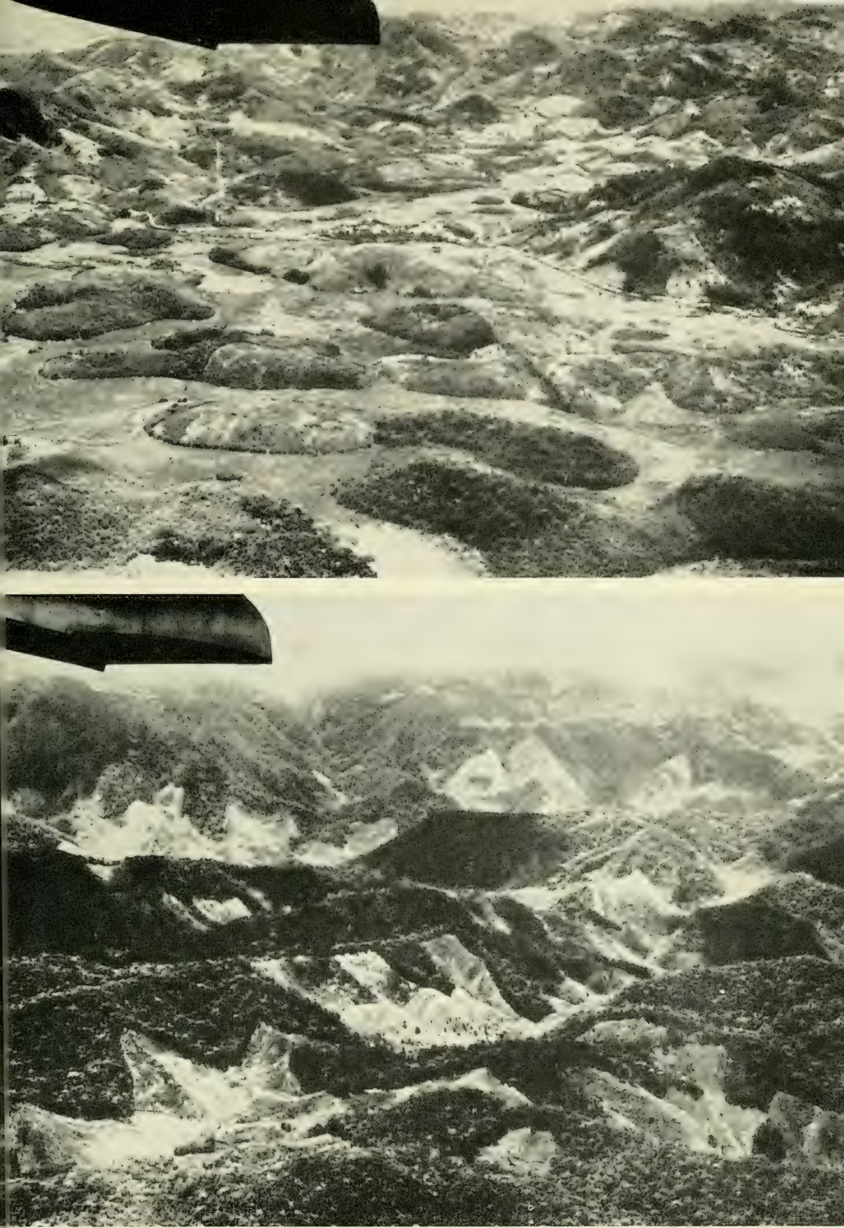

PLATE 107.—**Eastern Brazil landscapes.** *Top: Guaitaca* country. The coastal piedmont plain or terrace and edge of plateau, 20°27′ S.–40°29′ W. *Bottom:* Mountain agriculture on the eastern slopes of the Brazilian plateau, at about 20°34′ S.–40°36′ W. (After Rich, 1942, figs. 69, 72.)

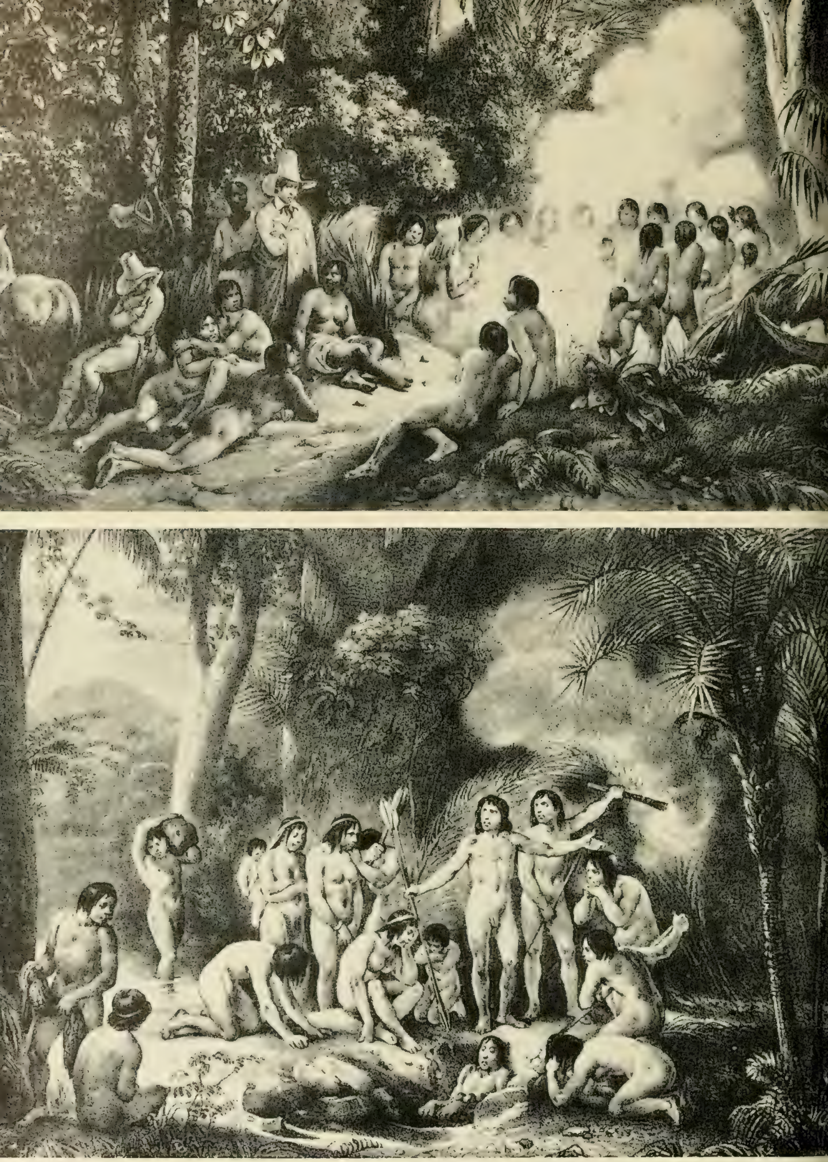

PLATE 108.—**Purí dance and burial.** (After Rugendas, 1835, pls. 6, 8.)

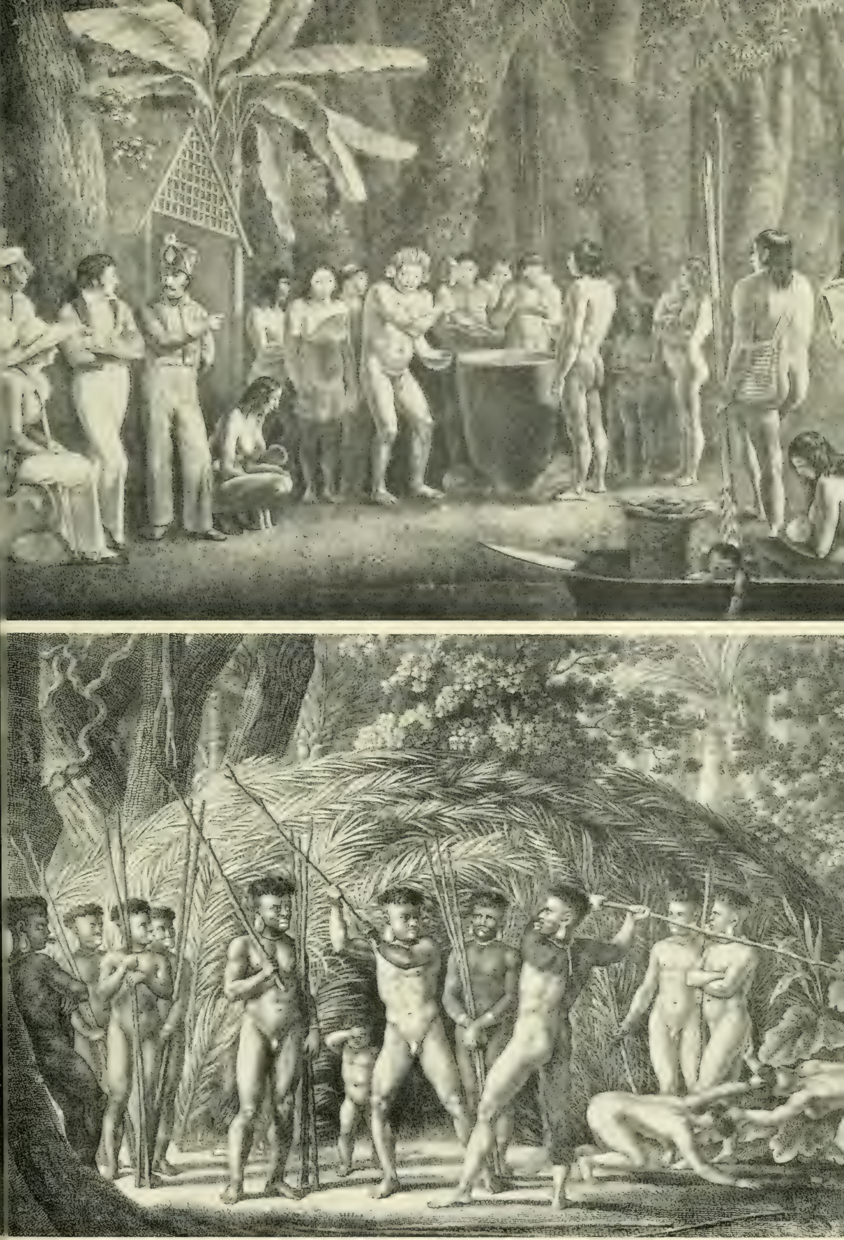

PLATE 109.—**Coroado and Botocudo life.** *Top: Coroado* drinking festival. (After Spix and Martius, 1825.) *Bottom:* Individual combats of the *Botocudo.* Rio Grande del Monte. (After Wied-Neuwied, 1822, pl. 11.)

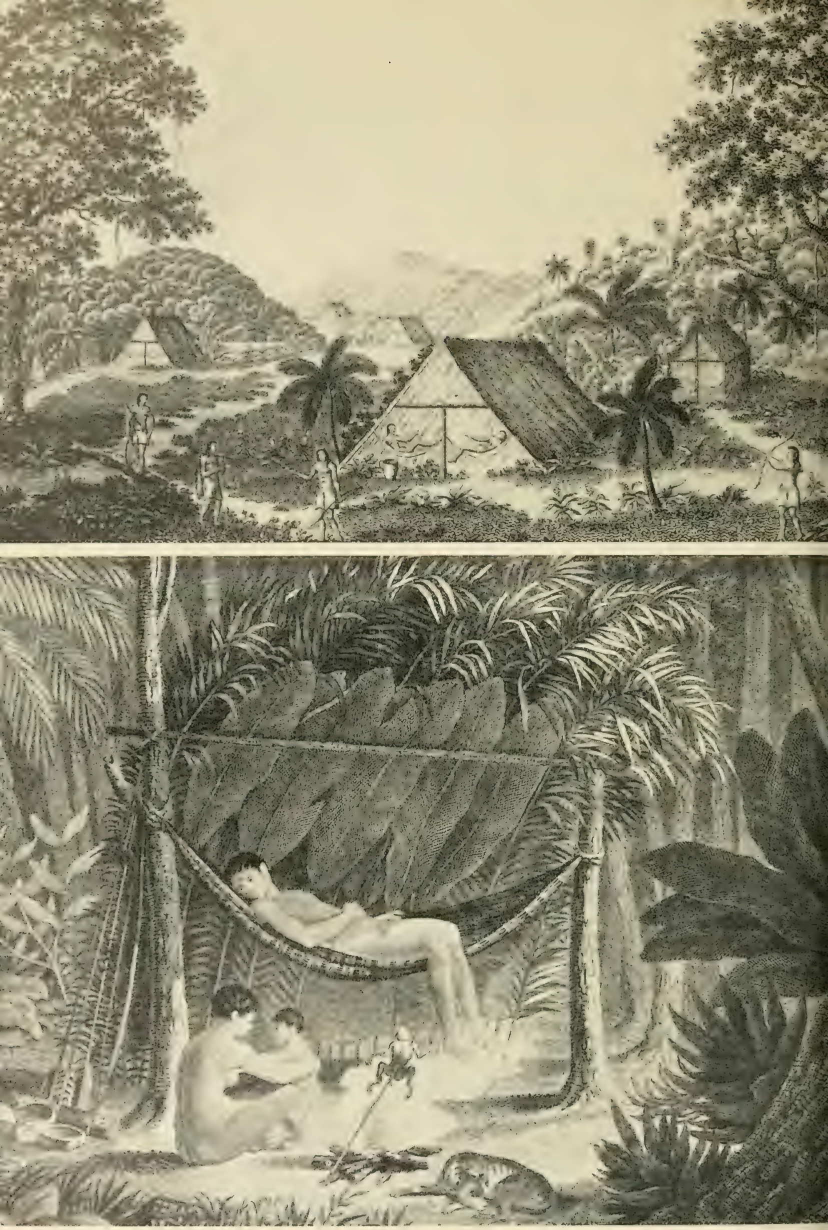

PLATE 110.—**Coroado and Purí shelters.** *Top: Coroado* village. (After Eschwege, 1818.) *Bottom: Pur* camp. (After Wied-Neuwied, 1822, No. 3.)

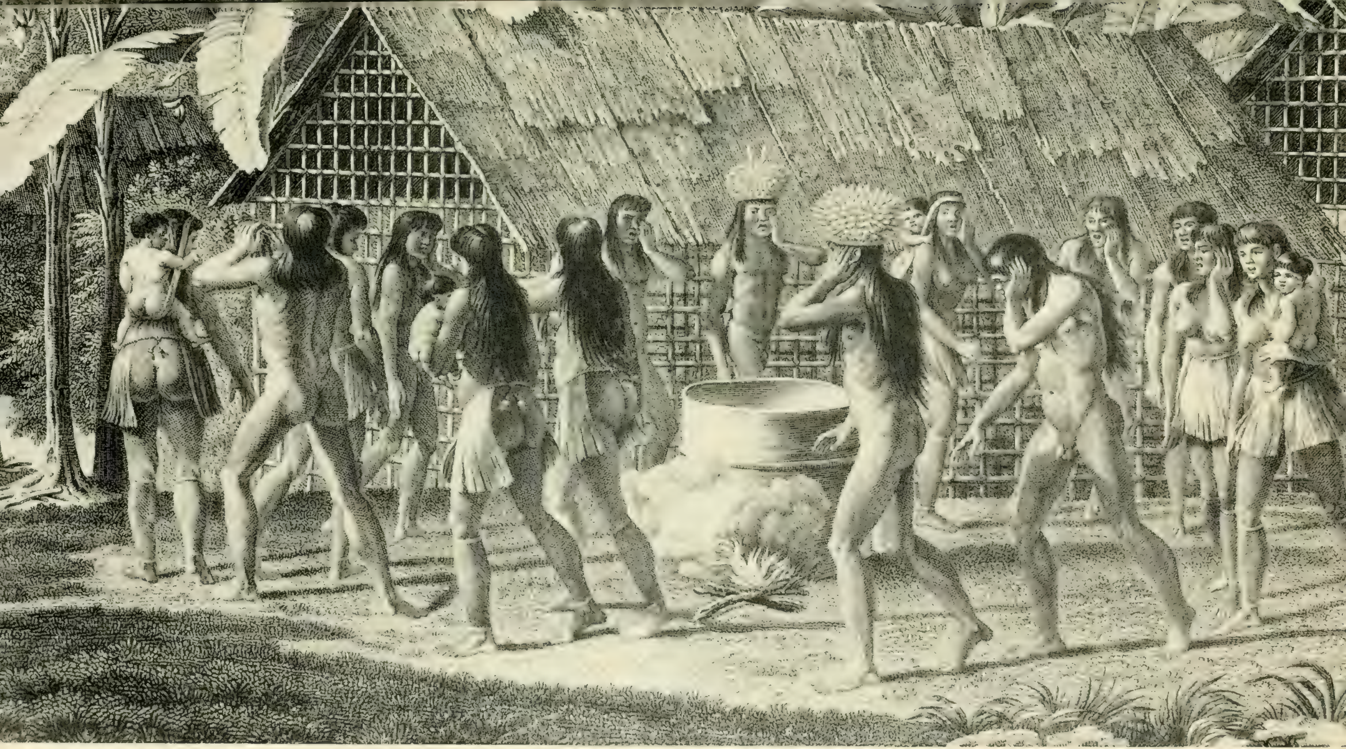

PLATE 111.—**Camacan dance.** (After Wied-Neuwied, 1822, No. 20.)

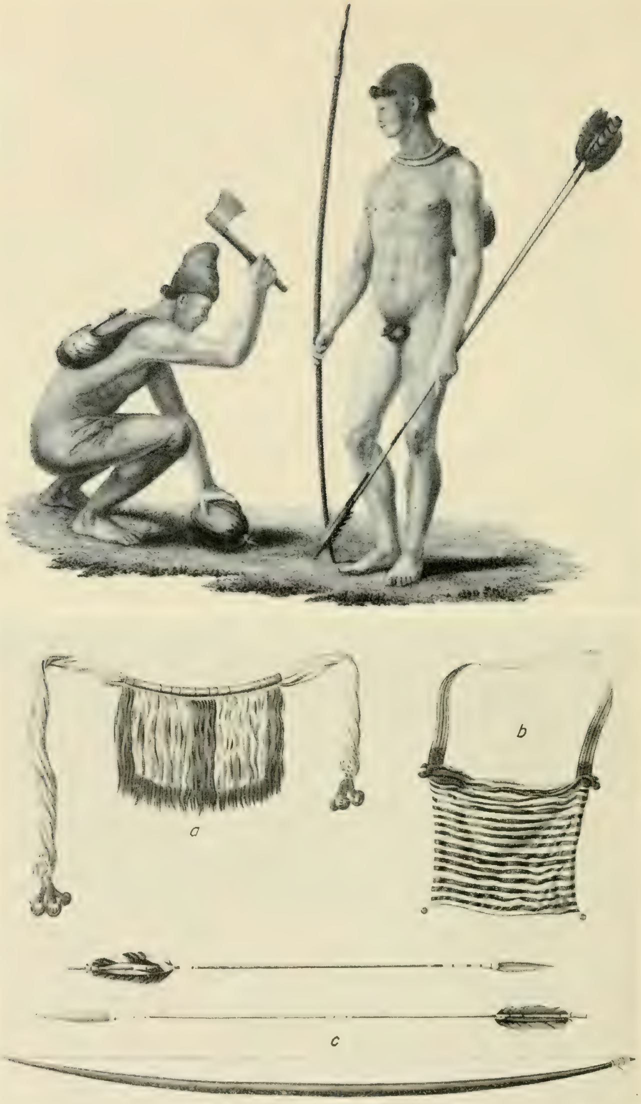

PLATE 112.—**Patashó and Camacan weapons and artifacts.** *Top: Patashó.* Rio del Prado. *Bottom: Camacan. a,* Woman's apron; *b,* woolen bag; *c,* arrows and bow. (After Wied-Neuwied, 1822, Nos. 7, 21.)

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ABBREVIATIONS

Acta Acad. Aboensis	Acta Academiae Aboensis. Äbo, Finland.
Acta Amer.	Acta Americana. Revista de la Sociedad (Sociedade) Interamericana de Antropología y geografía. Review of the Inter-American Society of Anthropology and Geography.
Actes Soc. Sci. Chili	Actes de la Société Scientifique du Chili. Santiago de Chile.
Amer. Anthrop.	American Anthropologist.
Amer. Journ. Orthopsychiatry	American Journal of Orthopsychiatry.
Amer. Mus. Nat. Hist. Anthrop. Pap.	American Museum of Natural History, Anthropological Papers, New York, N. Y.
An. Bibl.	Anales de la Biblioteca Nacional. Buenos Aires, Argentina.
An. Cient. Paraguayos	Anales Cientificos Paraguayos. Asunción, Paraguay.
An. Hidr. Mar. Chile	Anuario Hidrográfico de la Marina de Chile. Santiago de Chile.
An. Inst. Etnogr. Amer.	Anales del Instituto de Etnografía Americana de la Universidad Nacional de Cuyo. Mendoza, Argentina.
An. Mus. Arg. Cienc. Nat.	Anales del Museo Argentino de Ciencias Naturales "Bernardino Rivadavia," Buenos Aires, Argentina.
An. Mus. Hist. Nat. Montevideo	Anales del Museo de Historia Natural de Montevideo, Uruguay.
An. Mus. La Plata	Anales del Museo de La Plata, Argentina.
An. Mus. Nac. Hist. Nat. Buenos Aires	Anales del Museo Nacional de Historia Natural de Buenos Aires, Argentina.
An. Mus. Nac. Buenos Aires	Anales del Museo Nacional de Buenos Aires, Argentina.
An. Mus. Nac. Montevideo	Anales del Museo Nacional de Montevideo, Sección Histórico-Filosófica. Montevideo, Uruguay.
Ann. New York Acad. Sci.	Annals of the New York Academy of Science. New York, N. Y.
An. Soc. Cient. Argentina	Anales de la Sociedad Científica Argentina. Buenos Aires, Argentina.
An. Univ. Chile	Anales de la Universidad de Chile. Santiago de Chile.
Anthrop. Ser. Catholic Univ.	Anthropological Series, Catholic University of America, Washington, D. C.
Anthropos.	Anthropos. Ephemeris Internationalis Ethnologica et Linguistica . . .

Archiv. Antrop. Etnol.	Archivio per l'Antropologia e la Etnologia. Florence, Italy.
Archiv. Mus. Nac. Rio de Janeiro	Archivos do Museu Nacional. Rio de Janeiro, Brazil.
Atti Soc. Rom. Antrop.	Atti della Società Romana di Anthropologia, Roma.
Baessler-archiv	Baessler-archiv, Berlin, Germany.
Ber. d. Kaiserl. Leopold. Deutsch. Akad. d. Naturf. zu Halle.	Berichte der Kaiserlichen Leopoldinischen deutschen Akademie der Naturforscher zu Halle, Leipzig.
Bibl. Cent. Univ. Nac. La Plata	Biblioteca Centenaria de la Universidad Nacional de La Plata, Argentina.
Bibl. Ling. Amer.	Bibliothèque Linguistique Américaine. Paris, France.
Bibl. Ling. Mus. La Plata	Biblioteca Linguistica, Museo de La Plata, Argentina.
Bibl. Pedag. Brasil.	Biblioteca Pedagogica Brasileira. São Paulo and Rio de Janeiro, Brazil.
Bol. Acad. Nac. Cienc. Córdoba	Boletín de la Academia Nacional de Ciencias en Córdoba, Argentina.
Bol. Com. Geogr. e Geol. do Estado de São Paulo.	Boletín Comissão Geographica e Geologica do Estado de São Paulo. São Paulo.
Bol. Filol. Montevideo	Boletín de Filología. Montevideo, Uruguay.
Bol. Inst. Geogr. Argentino	Boletín del Instituto Geográfico Argentino. Buenos Aires, Argentina.
Bol. Inst. Invest. Hist.	Boletín del Instituto de Investigaciones Históricas de la Facultad de Filosofía y Letras. Buenos Aires, Argentina.
Bol. Paleont.	Boletín Paleontológico de Buenos Aires, Argentina.
Bol. Soc. Geogr. Italiana	Bollettino della Società Geografica Italiana. Rome, Italy.
Bull. et Mém. Soc. d'Anthrop. Paris	Bulletins et Mémoires de la Société d'Anthropologie de Paris, France.
Bull. Mus. Comp. Zoöl.	Bulletin of the Museum of Comparative Zoölogy. Cambridge, Massachusetts.
Bull. Soc. Anthrop. Paris	Bulletin de la Société d'Anthropologie de Paris, France.
Bull. Soc. Géol. France	Bulletin de la Société Géologique de France. Paris, France.
Bull. Soc. Neuchâteloise Géogr.	Bulletin de la Société Neuchâteloise de Géographie. Neuchâtel, Switzerland.
Bur. Amer. Ethnol. Bull.	Bureau of American Ethnology Bulletin, Smithsonian Institution, Washington, D. C.
Col. Hist. Chile	Colección de Historiadores de Chile. Santiago, Chile.
Com. Mus. Nac. Hist. Nat. Buenos Aires.	Comunicaciones del Museo Nacional de Historia Natural de Buenos Aires, Argentina.
Comp.-Rend. Acad. Sci. Paris	Compte-rendu d l'Académie des Sciences de Paris.

Congr. Int. Amer.	Congreso Internacional de Americanistas; International Congress of Americanists; etc.
Contr. Mus. Amer. Ind., Heye Foundation.	Contributions of the Museum of the American Indian, Heye Foundation. New York.
Estudios	Estudios. Buenos Aires.
Ethnol. Stud.	Ethnological Studies, Etnologiska Studier. Göteborg, Sweden.
Ethnol. Stud., Soc. Scient. Fennica	Ethnological Studies, Societas Scient. Fennica, Helsingfors.
"Gaea," An. Soc. Arg. Estud. Geogr.	Anales de la Sociedad Argentina de Estudios Geográficos.
Geogr. Ann.	Geografiska Annaler, Stockholm.
Globus	Globus. Braunschweig, Germany.
Göteborgs Kongl. Vet. Vitt. Handl.	Göteborgs Kongliga Vetenskapsch Vitterhets-samhalles Handlingar. Göteborg, Sweden.
Hakluyt	Hakluyt Society. London.
Harper's Mag.	Harper's Magazine; Harper's Monthly Magazine. New York, N. Y.
Inst. Hist. Geogr. Uruguay	Instituto de Historía e Geografía. Montevideo, Uruguay.
Int. Archiv. Ethnogr.	Internationales Archiv für Ethnographie. Leiden, Holland.
Int. Journ. Amer. Ling.	International Journal of American Linguistics.
Journ. Amer. Folk-lore	Journal of American Folk-lore. New York, N. Y.
Journ. Roy. Anthrop. Inst.	Journal of the Royal Anthropological Institute of Great Britain and Ireland. London, England.
Journ. Soc. Amér. Paris	Journal de la Société des Américanistes de Paris, France.
Kungl. Sven. Vet.-Acad. Handl.	Kungliga Svenska Vetenskaps-academiens Handlingar. Stockholm.
Man	Man, Royal Anthropological Institute of Great Britain and Ireland. London.
Mem. Int. Congr. Anthrop.	Memoirs of the International Congress of Anthropology. Chicago, Illinois.
Mitt. Anthrop. Gesell. Wien.	Mitteilungen der Anthropologischen Gesellschaft in Wien, Austria.
Notas Mus. Ethnogr. Univ. Buenos Aires.	Notas del Museo Etnográfico de la Facultad de Filosofía y Letras de la Universidad de Buenos Aires, Argentina.
Notas Mus. La Plata	Notas Museo de La Plata, Argentina.
Notas Prelim. Mus. La Plata	Notas Preliminares del Museo de La Plata, Argentina.
Physis	Physis. Revista de la Sociedad Argentina de Ciencias Naturales.
Petermanns Mitt.	Petermanns Mitteilungen. Gotha. J. Perthes.

Phil. Trans.	Philosophical Transactions. Royal Society of London. England.
Primitive Man	Primitive Man. Catholic University of America. Washington, D. C.
Proc. Amer. Assoc. Adv. Sci.	Proceeding of the American Association for the Advancement of Science.
Proc. 8th Amer. Sci. Congr.	Proceedings of the Eighth American Scientific Congress. Washington, D. C.
Publ. Inst. Arqueol. Ling. y Folklore	Publ. Instituto de Arqueologia, Linguística y Folklore Dr. Pablo Cabrera, Córdoba.
Publ. Mus. Antrop. Etnogr.	Publicaciones del Museo Antropológico y Etnográfico de la Facultad de Filosofía y Letras. Buenos Aires, Argentina.
Publ. Mus. Etnol. Antrop. Chile	Publ. del Museo de Etnologia y Antropologia de Chile. Santiago de Chile.
Publ. Mus. Etnogr. Univ. Buenos Aires.	Publicaciones del Museo Etnográfico, Universidad de Buenos Aires, Argentina.
Publ. Univ. Nac. Tucumán	Publicaciones de la Universidad Nacional de Tucumán, Argentina.
Rel. Geogr. Indias	Relaciones Geográficas de Indias.
Rel. Soc. Arg. Antrop.	Relaciones de la Sociedad Argentina de Antropología. Buenos Aires, Argentina.
Rev. Arq. Mun. São Paulo	Revista do Arquivo Municipal de São Paulo, Brazil.
Rev. Brasil. Musica	Revista Brasileira de Musica. Rio de Janeiro.
Rev. Chil. Hist. Geogr.	Revista Chilena de Historia y Geografía. Santiago de Chile.
Rev. Chil. Hist. Nat.	Revista Chilena de Historia Natural.
Rev. Geogr. Amer.	Revista Geográfica Americana. Buenos Aires, Argentina.
Rev. Inst. Ceará	Revista do Instituto do Ceará. Fortaleza, Ceará, Brazil.
Rev. Inst. Antrop. Univ. Nac. Tucumán.	Revista del Instituto de Antropología de la Universidad Nacional de Tucumán, Argentina.
Rev. Inst. Etnol. Univ. Nac. Tucumán.	Revista del Instituto de Etnología de la Universidad Nacional de Tucumán, Argentina.
Rev. Inst. Hist. Geogr. Brazil	Revista do Instituto Histórico e Geográphico do Brazil. Rio de Janeiro, Brazil.
Rev. Inst. Hist. Geogr. São Paulo	Revista do Instituto Histórico e Geográphico de São Paulo, Brazil.
Rev. Inst. Paraguayo	Revista del Instituto Paraguayo. Asunción, Paraguay.
Rev. Jardín Zool.	Revista del Jardín Zoológico. Buenos Aires, Argentina.
Rev. Mus. La Plata	Revista del Museo de La Plata, Argentina.
Rev. Mus. Paulista	Revista do Museu Paulista, Brazil.
Rev. Sec. Soc. Geogr. Lisboa, Brazil	Revista Mensual de Secção da Sociedade de Geographia de Lisboa, Brazil. Rio de Janeiro, Brazil.

Rev. Serv. Pat. Hist. Art. Nac.	Revista do Serviço do Patriomonio Historico e Artistico Nacional. Rio de Janeiro, Brazil.
Rev. Soc. Am. Arq. Montevideo	Revista de la Sociedad de los Amigos de la Arqueología de Montevideo, Uruguay.
Rev. Soc. Cient. Paraguay	Revista de la Sociedad Cientifica del Paraguay. Asunción, Paraguay.
Rev. Soc. Geogr. Rio de Janeiro	Revista da Sociedad Geographica do Rio de Janeiro, Brazil.
Rev. Trim. Hist. Geogr. Brasil	Revista Trimensal de História e Geographia *or* Journal do Instituto Histórico e Geográphico Brasileiro. Rio de Janeiro, Brazil.
Rev. Trim. Inst. Ceará	Revista Trimensal do Instituto do Ceará. Fortaleza, Ceará, Brazil.
Rev. Univ. Nac. Córdoba	Revista de la Universidad Nacional de Córdoba, Argentina.
Rev. Univ. Buenos Aires	Revista de la Universidad de Buenos Aires, Argentina.
Sem. Int. Ethnol. Religieuse	Semaine International d'Ethnologie Religieuse, Paris.
Sitz. Kaiserl. Acad. Wiss.	Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften. Vienna.
Sociología	Sociología; Revista Didática e Científica, São Paulo.
Soc. Ling. Paris, Coll. Ling.	Société de Linguistique de Paris, Collections Linguistiques. Paris.
Smithsonian Misc. Coll.	Smithsonian Miscellaneous Collections, Smithsonian Institution, Washington, D. C.
Trans. Ethnol. Soc. London	Transactions of the Ethnological Society of London, England.
Verhandl. d. Gesell. f. Erdkunde zu Berlin.	Verhandlungen der Gesellschaft für Erdkunde zu Berlin.
Verhandl. Schweiz. Naturf. Gesell.	Verhandlungen der Schweizerischen Naturforschenden Gesellschaft. Zurich.
Vierteljahrschr. Naturf. Gesell. Zurich.	Vierteljahrschrift der Naturforschenden Gesellschaft Zurich, Switzerland.
Ymer	Ymer. Stockholm, Sweden.
Zeit. Ethnol.	Zeitschrift für Ethnologie. Berlin, Germany.
Zeit. d. Deutsch. Wiss. Ver. z. Kult.- u. Landeskunde Argent.	Zeitschrift des Deutschen Wissenschaftlichen Vereins zur Kultur- und Landeskunde Argentiniens. Buenos Aires, Argentina.
Zeit. f. Eingeborenensprachen	Zeitschrift für Eingeborenen-sprachen. Berlin.

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